

Memorandum

To: Board of Trustees, FCERA
From: Jeffrey MacLean, CEO & Senior Consultant
Date: December 7, 2016
RE: Parametric Contract Approval

At the February Board meeting, FCERA's Board of Trustees approved retaining Parametric Portfolio Associates LLC for a cash overlay portfolio. We're pleased to announce that Foster Pepper, FCERA's external counsel, has concluded due diligence and negotiations of certain terms on FCERA's behalf.

Attached to this document, please find the relevant documents that have been sent to FCERA's administrative staff for review and execution upon final Board approval.

Documents attached:

- Investment Management Agreement with Parametric Portfolio Associates LLC
- Parametric Overlay Investment Guidelines
- Confidentiality Agreement Between Morgan Stanley (Prime Broker) and FCERA
- Morgan Stanley Master Commodity Futures Customer Agreement
- Authorized Signors List & Incumbency Certificate

Please call 310 297 1777 if you have any questions.

Investment Management Agreement

This Investment Management Agreement (the “Agreement”) is made and entered into effective the 8th day of December, 2016, by and between Fresno County Employees’ Retirement Association (the “Client” such term includes any and all agent(s) of Client), and Parametric Portfolio Associates LLC (“Investment Manager”), for the purpose of setting forth the terms and conditions of the investment management by Investment Manager of a portion of the Client’s assets.

1. **Appointment.** Client hereby appoints Investment Manager as an overlay manager for the Client’s portfolio as designated by the Client in the attached Guidelines; as such term is defined below. The designated overlay portfolio set forth in the Guidelines is referred to herein as the “Overlay Portfolio”. Investment Manager hereby agrees to manage the Client’s Overlay Portfolio toward the established investment objectives set forth in Client’s Policy Implementation Overlay Service (PIOS[®]) attached hereto as Exhibit A (“Guidelines”). Investment Manager will assume responsibility for the investment management of the Overlay Portfolio or monitoring of accounts as agreed upon between Client and Investment Manager on the date set forth above, or on such later date as is set forth on the last page of this Agreement. However, Investment Manager shall not become responsible for the investment management of the Overlay Portfolio until such time as it is able to make investment decisions with respect to the Overlay Portfolio. While managing only a portion of the assets of the Client, the Client agrees and acknowledges any liability created by any contracts made by the Investment Manager hereunder, in accordance with the Guidelines and within the authority set forth in Section 2 below, is a general obligation of the Client to be satisfied out of any assets of the Client.

2. **Management Authority.** Subject to the Guidelines, its fiduciary duties, and the standard of care set forth in Section 7, the Investment Manager shall have full discretionary authority as agent and attorney in fact to bind the Client in accordance with the Guidelines and to: (a) buy, sell, exchange, convert, or otherwise trade in Permissible Instruments as listed in Exhibit A and contracts relating to same on margin or otherwise, as the Investment Manager, in its sole discretion, deems advisable; and (b) place orders for the execution of such securities transactions with or through any brokers, dealers, or issuers as the Investment Manager may select. The Investment Manager is authorized to execute and enter into brokerage contracts, risk disclosure and other agreements on behalf of the Client and perform such functions as it considers reasonable, necessary or convenient in order to carry out the purpose of this Agreement and the investment objectives of Client. The power of attorney embodied in this Section 2 is coupled with an interest and shall terminate immediately upon termination of this Agreement. However, the Client retains the right to remove the authority granted herein upon written notice to the Investment Manager.

In the event there are conflicts or ambiguity between the Guidelines and any statement or response made in a request for proposal or the constituent documents of Client, which includes but is not limited to organizational documents, trust agreement or similar documents that sets forth the policies under which Client is to operate, the Guidelines will control.

The Investment Manager represents that it will continue to be throughout the period of this Agreement registered under the United States Investment Advisers Act of 1940 as amended (“Advisers Act”). The

Investment Manager is authorized to bind assets of the Client beyond the portion of the assets it is appointed to manage as provided in Section 1.

3. **Custodianship.** The Client shall make arrangements for the retention and safekeeping of the assets comprising the Overlay Portfolio together with any earnings and additions thereto with a trustee or custodian. The Client may change the custodian from time to time. The Client will notify the Investment Manager of any changes. The Investment Manager shall not be the custodian except to the extent deemed so under the Advisers Act by virtue of arrangements, if any, to charge investment management fees directly to the Overlay Portfolio. The Investment Manager shall have no responsibility for the receipt, distribution, or safekeeping of any cash or other assets of the Overlay Portfolio. The Client shall take whatever action is required to authorize and permit the Investment Manager to effect trades of the cash and investments held in the Overlay Portfolio and to otherwise permit Investment Manager to carry out its management authority as provided in Section 2 above. The Client acknowledges and agrees that the Client has the responsibility to (i) ensure Client appoints (or directs Investment Manager to appoint) a qualified custodian as defined in the Advisers Act (the "Custodian") and (ii) ensure Client receives statements directly from the Custodian and (iii) verify the statements from the Custodian with statements received from the Investment Manager.

4. **Compensation.** The Investment Manager shall receive a monthly retainer fee of \$1,500 plus a fee based on the following schedule:

	<u>Market Value of Overlay Portfolio Assets</u>	<u>Annual Fee Expressed as a Percentage of Overlay Portfolio Value</u>
First	\$25,000,000	.15%
Next	\$75,000,000	.10%
Above	\$100,000,000	.04%

Minimum Quarterly Fee \$25,000

Overlay Portfolio Assets can include:

- Market value of securities held
- Gross Synthetic index exposure acquired through futures positions
- Gross notional value of option based hedge strategies

In the event there are no Overlay Portfolio Assets and the Investment Manager is providing monitoring or reporting information on accounts, the minimum quarterly fee will apply.

The Custodian may pay the fees listed above from the Overlay Portfolio if the Client does not pay such fees within thirty days of receiving written notice of the fees that are due. Fees shall be due and payable quarterly to Investment Manager in arrears commencing on the date that investment management responsibility is assumed by Investment Manager. The applicable fee rate for a calendar quarter shall be equal to one-fourth of the above applicable annual fee rate and shall be applied against the average of the Overlay Portfolio Monthly Value (as defined below) for each calendar month in the quarter. For

purposes of the preceding sentence, the Overlay Portfolio Monthly Value for a given calendar month shall be equal to the average of the fair market value of the assets of the Overlay Portfolio for each trading day during such month (determined as of the close of business on such trading day) that the Overlay Portfolio was maintained for Client. In any situation where this Agreement becomes effective or is terminated during a quarter in which services are provided, fees are charged on a pro rata basis for the portion of the quarter during which Investment Manager serves as manager. Brokerage charges, commissions, taxes and other costs incident to the purchase and sale of securities which are included in the cost of securities purchased or charged against the proceeds in the case of sale, shall ordinarily be charged to and paid out of the Overlay Portfolio.

In addition to the above, Client shall pay an annual fee of \$5,000 to Investment Manager for each additional separate account that Client determines necessary in order for Client to account for its assets in conjunction with the Overlay Portfolio and services provided herein.

5. **Assignment and Change in Management.** An assignment of this Agreement by the Investment Manager may occur only with the written consent of the Client obtained consistent with the Advisers Act. The Investment Manager shall advise the Client within ten (10) days of any (a) change of ten percent (10%) or more in the ownership interest in, or control of, the Investment Manager over any 12-month trailing period, or (b) reassignment or other changes in personnel significantly engaged in management of any Overlay Portfolio. The Investment Manager shall also notify the Client if there is a material change in the nature of the Investment Manager's principal business activity.

6. **Termination.** This Agreement may be terminated by the Investment Manager at any time upon one hundred and twenty (120) days prior written notice to the Client. This Agreement may be terminated by the Client (i) at any time upon three (3) days prior written notice to the Investment Manager or (ii) immediately upon written notice to the Investment Manager if the Investment Manager has failed to perform any of its obligations under this Agreement and such failure is continuing. Such termination shall in no way affect the validity of this Agreement with reference to any transactions, trades, dealings, and action initiated prior to the actual receipt of such written notice of termination. The Investment Manager's responsibility for investment management decisions shall cease upon receipt of the written notice of termination or upon remittance by it of such written notice of termination.

7. **Fiduciary Duty; Liability; Standard of Care.**

The Investment Manager shall be responsible for managing the investment of the Overlay Portfolio only in accordance with the Guidelines and applicable law. The Investment Manager shall have no responsibility whatsoever for any other assets or activities of the Client. Without limiting the foregoing, the Investment Manager acknowledges that it shall be a fiduciary with respect to the Client and the Overlay Portfolio, and shall comply with the responsibilities required of a fiduciary, including, without limitation, compliance with applicable law and regulations and the discharge of its duties under this Agreement solely in the interest of the Client. The Investment Manager shall manage, acquire, hold or dispose of the assets in the Overlay Portfolio with the care, skill, prudence and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with such matters would use in the conduct of an account of a like character and with like aims, and in accordance with applicable law and regulations. The Investment Manager shall at all times determine what

information is material and relevant to its decisions, obligations, duties and responsibilities as a fiduciary as set forth herein, and then make an informed and prudent decision based on its findings. The fiduciary standards set forth herein require both substantive and procedural prudence. The Investment Manager shall avoid all conflicts of interest in the performance of its obligations under this Agreement. The Investment Manager shall not, in connection with the Overlay Portfolio or the services to be provided hereunder, trade for its own principal account.

The Investment Manager represents that it possesses the skills of a seasoned investment professional with at least five (5) years of actual experience managing assets in accordance with the Guidelines. Therefore, in addition to the Investment Manager's fiduciary obligations as provided for under this Agreement, the Investment Manager shall at all times exercise at least that degree of care and competence as would a seasoned investment professional with at least five (5) years of actual experience managing assets in accordance with the Guidelines.

The Investment Manager shall seek to obtain best execution of trades for the Client, taking into account customary practices in prevailing markets for the particular types of investments being traded and the full range, quality and reliability of brokerage services, as well as commission rates and that value of research and investment information provided by the counterparty, and any other relevant factors. The Investment Manager in no way shall directly or indirectly participate in commissions, fees or costs arising out of transactions for the Overlay Portfolio, except that the Client acknowledges that the Investment Manager may agree to commissions that are higher than those that might be negotiated otherwise in consideration of research and brokerage services that may be provided to the Investment Manager or the Investment Manager's clients generally, in accordance with Section 28(e) of the Securities Exchange Act of 1934, as amended, or in order to obtain better net cost and overall execution. With respect to trades where the Client has directed brokerage, the Client acknowledges that the Investment Manager may not be able to achieve the most favorable execution of the transaction.

Except as may otherwise be provided by applicable law, Investment Manager is not liable for (a) any loss that Client or the Overlay Portfolio may suffer by reason of any investment decision made or other action taken or omitted in good faith by Investment Manager consistent with the standard of care set forth in this Section 7, (b) any loss arising from Investment Manager's adhering to the Guidelines, or (c) any act or failure to act by the Custodian or any broker or dealer to whom the Investment Manager directs transactions. The federal securities and certain state laws impose liabilities under certain circumstances on persons who act in good faith, and therefore nothing herein shall in any way constitute a waiver or limitation of any rights which Client may have under any such laws. Investment Manager assumes no responsibility for investment decisions made prior to the date that it assumes investment management authority pursuant to this Agreement. There can be no assurance Client will achieve its objective through the PIOS[®] program. Past performance does not guaranty future results and the Investment Manager does not warrant any particular rate of return, level of tracking error or index tracking reliability.

The Client shall defend, indemnify and hold harmless the Investment Manager, its officers, directors, affiliates and employees (the "Investment Manager Indemnified Parties") from and against any and all expenses, liabilities, damages, taxes, charges and claims of any kind or nature that the Investment Manager Indemnified Parties may incur (including reasonable attorney's fees and expenses)

(collectively, "Manager Losses") to the extent the Manager Losses are directly related to or arise out of any action taken or omitted to be taken by the Client that constitutes bad faith, negligence, willful misconduct or misfeasance, breach of this Agreement or of fiduciary duty or violation of applicable law. To the extent that Client provides such indemnity, it is entitled, at its own cost, to assume the defense of such action, including selection of counsel, which counsel shall be reasonably acceptable to Investment Manager Indemnified Parties. In no event shall the Client defend or hold harmless the Investment Manager Indemnified Parties for any indirect, consequential, punitive, exemplary, special or other non-economic damages.

The Investment Manager shall defend, indemnify and hold harmless the Client, its officers, directors, trustees, affiliates and employees (the "Client Parties") from and against any and all expenses, liabilities, damages, taxes, charges and claims of any kind or nature that the Client Parties may incur (including reasonable attorney's fees and expenses) ("Client Losses") to the extent that the Client Losses are directly related to or arise out of any action taken or omitted to be taken by the Investment Manager Indemnified Parties that constitutes bad faith, negligence, willful misconduct or misfeasance, breach of this Agreement, or violation of applicable law. To the extent that the Investment Manager provides such indemnity, it is entitled, at its own cost, to assume the defense of such action, including selection of counsel, which counsel shall be reasonably acceptable to the Client. In no event shall the Investment Manager defend or hold harmless the Client Parties for any indirect, consequential, punitive, exemplary, special or other non-economic damages.

8. **Confidential Information.** All information and advice furnished by either party to the other in connection with the Agreement, including their respective agents and employees, shall be treated as confidential and shall not be disclosed to third parties except (a) as instructed by Client, (b) as required by applicable law or regulation, (c) for disclosures by either party to its legal counsel, accountants or other professional advisors, or (d) to third party service providers as necessary to effect, administer, or enforce the obligations and transactions contemplated by this Agreement.

The Investment Manager acknowledges and agrees that the Client may be required pursuant to statute, rule, regulation, or policy, or judicial or governmental order, judgment or decree, to disclose to the public (collectively, "Open Record Laws") information regarding the investments, identity, performance, or value of any fund managed or advised by the Investment Manager or confidential or proprietary business information relating to the services or products of the Investment Manager. The Client will use its commercially reasonable efforts to give (a) prior written notice of such requirement to the Investment Manager, and (b) prior written notice of any request for disclosure under such Open Records Laws to the Investment Manager, provided that the Client's failure to notify and act as set forth in this sentence will not constitute a breach of this Agreement. The Investment Manager and the Client agree to work together to reach an arrangement whereby the Client is given access to the types of confidential information as the Client deems reasonably necessary to fulfill its disclosure requirements while protecting the confidentiality of such information. The Investment Manager shall not make any claim against the Client if the Client makes available to the public any report, notice or other information the Client received from the Investment Manager, which was required to be made public pursuant to any Open Records Laws. The Investment Manager acknowledges that a description of this Agreement may be posted on the Client's website or otherwise disclosed by the Investment Manager, including, without limitation, the name of the Investment Manager, the total amount applicable to this Agreement, the

total fees paid or to be paid under this Agreement, and a description of the factors that contributed to the selection of the Investment Manager as investment adviser.

The Investment Manager may not include the Client's name for marketing purposes.

9. Severability. If any part of this Agreement shall be held void, voidable, or otherwise unenforceable by any court of law or equity, nothing contained in this Agreement shall limit the enforceability of any other part.

10. ERISA Representations. Client hereby represents, warrants and agrees that as of the date hereof and through the term of this Agreement that (a) it is not subject to Title I of the U.S. Employee Retirement Security Act of 1974, as amended ("ERISA") or a plan subject to Section 4975 of the Internal Revenue Code of 1986, as amended; (b) it is not acting on behalf of an employee benefit plan (a "Plan") as defined in Section 3(3) of ERISA; and (c) none of its assets constitute assets of a Plan.

11. Authority. Each of the parties to this Agreement hereby represents that (a) it is duly authorized and empowered to execute, deliver and perform this Agreement, (b) that such action does not conflict with or violate any provision of law, rule or regulation, contract, deed of trust, or other instrument to which it is a party or to which any of its property is subject and (c) that this Agreement is a valid and binding obligation of such party enforceable against such party in accordance with its terms except as such enforcement may be limited by bankruptcy or similar laws effecting creditors rights. In addition, each individual identified, whether by name or by title, on Exhibit B as Client's representatives, are each individually authorized to communicate with Investment Manager in all areas and in all manners set forth in this Agreement ("List of Authorized Client Representatives") and as further specified in Exhibit B. It remains the sole responsibility of Client to provide Investment Manager with revisions to the List of Authorized Client Representatives as appropriate and necessary. Investment Manager has no obligation to make inquiries regarding the authority of individuals provided on the List of Authorized Client Representatives.

12. Headings. The headings of paragraphs herein are included solely for convenience and shall have no effect on the meaning of this Agreement.

13. Personnel Designations. Client may not designate the employee, officer or associate of the Investment Manager who shall perform the services set forth in this Agreement.

14. Additional Investment Manager Representations. The Investment Manager hereby represents and warrants that neither it nor any of its officers, directors, employees, or affiliates (i) has ever knowingly engaged in any illegal activities regarding securities trading or ever knowingly acted, caused another to act, or refrained from acting on material non-public information or engaged in supplying others with material non-public information for securities trading purposes, or (ii) is now, or has ever been, the subject of any investigation or other legal action by any state or federal regulatory authority that would have, or be expected to have, a material adverse effect upon the services to be provided to Client under this Agreement, (iii) is named on the List of Specially Designated Nationals and Blocked Persons maintained by the Office of Foreign Assets Control of the U.S. Department of the Treasury ("OFAC"), or any similar list maintained by OFAC, (iv) has violated any relevant anti-money laundering

legislation, rule, regulation or order enforced or issued by OFAC or has otherwise been convicted of or charged with a crime relating to money laundering, or (v) has ever made any payment to any person or entity in violation of the U.S. Foreign Corrupt Practices Act. The Investment Manager agrees to promptly notify the Client of the occurrence of any event that would cause the representations set forth in this Section 14 to be untrue.

15. Reports and Further Assurances. The Investment Manager shall provide the Client all reports specified in the Guidelines, and shall furnish such additional reports and information in such form and in such frequency as may reasonably be requested by the Client. The Investment Manager shall allow reasonable access to records pertaining to the Overlay Portfolio at the Investment Manager's offices during normal business hours. The Client will execute and deliver such instruments and do all other acts as necessary for the Investment Manager to carry out the purposes of this Agreement.

16. Placement Agents; No Bribery. The Investment Manager (which term, for purposes of this provision, shall include the Investment Manager's affiliates and the directors, partners, members, officers and agents of the Investment Manager and such affiliates) acknowledges that the Client has provided the Investment Manager with a copy of the Client's Placement Agent Disclosure Policy, effective December 1, 2014 (the "Policy"), which requires the completion of a Placement Agent Disclosure Statement (as such term is defined in the Policy). The Manager agrees that it will be bound by and will comply with the terms of the Policy and any amendments to the Policy after notice of any such amendment is given to the Manager. In addition, the Manager agrees that it will cooperate with the Client's staff in meeting their obligations under the Policy.

The Investment Manager represents and warrants that it has provided the Client with a Placement Agent Disclosure Statement prior to the date hereof and that all information contained in the Placement Agent Disclosure Statement is true, correct, and complete as of the date hereof. If the Investment Manager determines at any subsequent time that the Placement Agent Disclosure Statement has become untrue, incomplete, contains a material omission, or is misleading in any material respect, the Investment Manager will notify the Client and will provide the Client with a new Placement Agent Disclosure Statement within fourteen (14) business days of the date that the Investment Manager became aware, or should have become aware, of such change to or omission in the information.

If (a) the Investment Manager fails to cure an inaccuracy or omission in the Placement Agent Disclosure Statement as required and within the time frame specified above, or (b) the Client determines that the Placement Agent Disclosure Statement contains a material omission or inaccuracy, or (c) if the Investment Manager violates the Policy in any other way, the Client will be entitled to the following remedies:

(i) Reimbursement of the greater of (A) any management or advisory fees paid to the Investment Manager by the Client for the prior two (2) years or (B) an amount equal to the amounts paid or promised to be paid to the Placement Agent (as such term is defined in the Policy) as a result of the Client's investment; and

(ii) At the Client's option, the Client shall have the authority to terminate immediately this Agreement and any other agreement with the Investment Manager without penalty, to

withdraw without penalty from any related investment vehicle, or to cease making further capital contributions (and paying any fees or expenses on these recalled commitments) to any such related investment vehicle, in each case without default, penalty or liability to such investment vehicle, to the Investment Manager, or to any other party.

The Investment Manager represents and warrants that it has notified each Placement Agent that, pursuant to the Policy, such Placement Agent has the responsibility and obligation to disclose to the Client all campaign contributions, gifts (as defined in California Government Code Section 82028), or other items of value made or given by such Placement Agent to any member of the Client's Board or person(s) who has the authority to appoint a person to the Client's Board, Staff (as such term is defined in the Policy), or Consultants (as such term is defined in the Policy), during the prior 24-month period. Additionally, any subsequent campaign contribution, gift (as defined in California Government Code Section 82028), or other item of value made or given by a Placement Agent to any member of the Client's Board or person(s) who has the authority to appoint a person to the Client's Board, Staff, or Consultants during the time such Placement Agent is receiving compensation in connection with the Client's investment, shall also be disclosed to the Client.

The Investment Manager certifies that neither the Investment Manager nor any of its principals or senior officers has been convicted of bribery or attempting to bribe an officer or employee of the State of California, county, or city therein, or political subdivision thereof, nor has it made an admission of guilt of such conduct which is a matter of record.

17. Successors. Subject to the limitations on assignment, this Agreement shall inure to the benefit of Investment Manager and its successors, irrespective of any change at any time in the personnel thereof. This Agreement also shall inure to the benefit of the Client and its successors, irrespective of any change at any time in the personnel thereof.

18. Entire Agreement Governing Law: Counterparts. This Agreement constitutes the entire agreement of the parties with respect to management of the Overlay Portfolio and can be amended only by written document signed by the parties, except that the Guidelines may be modified by electronic communication in the form of e-mail, instant messaging or other similar recorded text, acknowledged by the parties. This Agreement shall be governed by the laws of the state of California without reference to the conflicts or choice of laws principles of such state except to the extent the Advisers Act supersedes California law. This Agreement may be executed in counterparts, each of which shall be deemed an original.

19. Proxy Voting and Other Actions. The Client agrees that Investment Manager will not advise or act for Client in any legal proceedings, including bankruptcies or class actions, involving investments held in the Overlay Portfolio. Investment Manager will not vote proxies for any investments in the Overlay Portfolio.

20. Disclosure. The Client acknowledges it has received and reviewed Investment Manager's Form ADV, Parts 2A and 2B prior to, or at the time of, execution of this Agreement.

21. Business Continuity and Disaster Recovery. The Investment Manager represents and warrants that it has policies, procedures and controls reasonably designed to address business continuity and disaster recovery, and the Investment Manager agrees to undertake reasonable efforts to mitigate the effects of a force majeure event.

22. Insurance. The Investment Manager shall maintain in full force and effect reasonable insurance policies throughout the term of this Agreement, including policies of the types and with coverage amounts not materially less than the amounts indicated in the summary of the Investment Manager's insurance coverages contained in the Investment Manager's response dated May 6, 2016 to the Client's request for information. The Investment Manager shall on or before the Effective Date provide the Client with a certificate of insurance evidencing proof of such insurance coverages and including a thirty (30) day notice of cancellation provision.

23. Notices.

(a) Any notice or other communication in respect of this Agreement may be given in any manner set forth below to the address or number or in accordance with the electronic messaging system details (e-mail address information) provided and will be deemed effective as indicated:

- (i) if in writing and delivered in person or by courier, on the date it is delivered;
- (ii) if sent by facsimile transmission, on the date that transmission is received by a responsible employee of the recipient in legible form (it being agreed that the burden of proving receipt will be on the sender and will not be met by a transmission report generated by the sender's facsimile machine);
- (iii) if sent by certified or registered mail (airmail, if overseas) or the equivalent (return receipt requested), on the date that mail is delivered or its delivery is attempted; or
- (iv) if sent by electronic messaging system (e-mail), on the date that electronic message is received,

unless the date of that delivery (or attempted delivery) or that receipt, as applicable, is not a business day or that communication is delivered (or attempted) or received, as applicable, after the close of business on a business day, in which case that communication shall be deemed given and effective on the first following day that is a business day.

(b) **Change of Addresses.** Either party may by notice to the other change the address, or facsimile number or electronic messaging system details at which notices or other communications are to be given to it.

Address for notices or communications to Client:

EXECUTION COPY

Address: Fresno County Employees' Retirement Association
1111 H. Street
Fresno, CA 93721

Attention: Donald Kendig

Facsimile No.: 559-457-0318

Telephone No.: 559-457-0350

Email: dkendig@co.fresno.ca.us

Address for notices or communications to Investment Manager:

Address: Parametric Portfolio Associates LLC
3600 Minnesota Drive, Suite 325
Minneapolis, MN 55435

Attention: Chief Investment Officer

Telephone No: 952-767-7700

Facsimile No: 952-767-7701

Email: MN-Investments@paraport.com

(Signature page follows)

PURSUANT TO AN EXEMPTION FROM THE COMMODITY FUTURES TRADING COMMISSION IN CONNECTION WITH ACCOUNTS OF QUALIFIED ELIGIBLE PERSONS, THIS ACCOUNT DOCUMENT IS NOT REQUIRED TO BE, AND HAS NOT BEEN, FILED WITH THE COMMISSION. THE COMMODITY FUTURES TRADING COMMISSION DOES NOT PASS UPON THE MERITS OR PARTICIPATION IN A TRADING PROGRAM OR UPON THE ADEQUACY OR ACCURACY OF COMMODITY TRADING ADVISOR DISCLOSURE. CONSEQUENTLY, THE COMMODITY TRADING COMMISSION HAS NOT REVIEWED OR APPROVED THIS TRADING PROGRAM OR THIS ACCOUNT DOCUMENT.

Fresno County Employees' Retirement Association

By: _____
Name: Steven J. Jolly
Title: Chair

By: _____
Name: Donald C. Kendig, CPA
Title: Retirement Administrator

Date Investment Management
responsibility assumed if later
than date specified on page 1:
N/A

Parametric Portfolio Associates LLC

By: _____
Name: _____
Title: _____

These Investment Guidelines form an integral part of that certain Investment Management Agreement dated December 8, 2016 by and between Fresno County Employees' Retirement Association and Parametric Portfolio Associates LLC.

Effective Date: December 8, 2016

Client Name: Fresno County Employees' Retirement Association ("Client")

Investment Manager: Parametric Portfolio Associates LLC ("Investment Manager")

Investment Strategy:

- Cash Securitization – Fund Level (Appendix B)
- Cash Securitization – Designated Managers (Appendix B)
- Exposure Maintenance including Rebalancing (Appendix C)
- Transition Exposure Management (Appendix D)
- Interest Rate Management (Appendix E)
- Currency Exposure Management (Appendix F)
- Beta Management of Portable Alpha (Appendix G)

Benchmark: Custom benchmark based on Investment Strategy

Fund Asset Allocation: Defined in Appendix A

Investment Objectives and Guidelines:

Client may seek to securitize fund level cash in a manner consistent with the stated benchmark(s) and methodology as defined in Appendix B. To the extent possible, Client will notify Investment Manager in advance of any material cash flows into or out of fund accounts which are used to determine required overlay positions.

Client may seek to securitize cash held in designated manager portfolios as defined in Appendix A. Cash will be securitized as specified in Appendix B. Client will notify Investment Manager in the event changes to the manager cash overlay component are desired.

Client may seek to adjust market exposures or to rebalance the fund's liquid asset class exposures. The specifics of how portfolio exposure changes or how rebalancing moves will be made are defined in Appendix C.

Client may seek to manage gaps in market exposure resulting from transition events including, but not limited to: A) change in managers, B) change in asset allocation, C) fund contribution or distributions, D) or other related temporary fund disruptions. The specific parameters related to each "transition event" are defined in

Appendix D. Each transition event will be reviewed individually and clear written instructions must be provided to Investment Manager by Client for each transition in which Investment Manager is asked to participate.

The Client may seek to manage interest rate risk. The fund's duration may be modified, subject to the duration constraints of the fund. The duration overlay position, when combined with the estimated duration of Client's fixed income portfolio and the assumed duration of other asset positions identified by Client to be used in the calculation, will seek to achieve effective fixed income allocation duration consistent with the established target and related ranges as defined in Appendix E.

The Client may seek to manage currency exposure. The currency overlay position, when combined with the underlying assets in the fund, seeks to achieve an effective currency exposure consistent with the established target and related ranges defined in Appendix F.

The Client may seek to manage the beta component of an Alpha Transport program. The overlay program can be used to transport alpha from one asset class to another. Appendix F outlines the terms of the strategy.

Portfolio Monitoring

On a daily basis, Investment Manager will seek to obtain relevant information from the custodian regarding the market value of the Client's designated cash and/or external manager portfolios ("Information") involved in the Investment Strategy. In the case of commingled funds (e.g. mutual funds) or other assets where a daily market value is not available, a proxy pricing methodology may be established for the designated portfolio as defined in Appendix H.

Subject to the foregoing, where electronic interfacing is reasonably available for the purposes set forth herein, Investment Manager will be responsible for establishing a communication link and electronic interface methodology enabling the transfer of Information from the Custodian. Client acknowledges and agrees that Investment Manager will rely on Information provided by these methods without further investigation or confirmation. From time to time, such communication link may be unavailable due to system outages or other technical issues outside of Investment Manager's reasonable control, which include, but are not limited to internet problems, hardware or software issues. In the event that Information cannot be transferred on any given day, regardless of the reason, Investment Manager will attempt to receive Information through an alternative method. Client will reasonably assist Investment Manager in obtaining Information.

If, as part of the Investment Strategy, Investment Manager is required to monitor Client assets beyond Overlay Portfolio, Investment Manager will review the asset data in an attempt to verify its accuracy but it makes no assurances in this regard.

Execution Guidelines

In accordance with these guidelines, Investment Manager has the authority to execute trades which are intended to achieve Investment Strategy objectives and are consistent with the structure as described herein.

A Daily Tracking Report (“DTR”) will be generated by Investment Manager using information as described above, subject to certain limitations. If transactions are not executed due to uncontrollable events (e.g. trading halts), the Investment Manager will contact Client to discuss alternatives.

A margin pool will be established in a designated Custodian account for Investment Manager to provide the initial and variation margin necessary to support and manage overlay positions required by all Investment Strategies. The size of the margin pool will be a function of the size of overlay positions as well as Client’s desire to increase the level of overall fund liquidity. Investment Manager is responsible for providing Client’s representative(s) with an estimate of the initial margin required to support the overlay positions as specified by the exchange on which the overlay positions are traded; recommended variation margin, or liquidity buffer, required to meet ongoing mark-to-market obligations; and margin pool level for the Investment Strategy on a daily basis via Investment Manager’s website: www.parametricportfolio.com. Investment Manager will seek to contact Client’s representative if the margin pool moves to a level requiring the addition of variation margin or if margin pool balance has grown to a level estimated to be significantly beyond recommended levels.

While margin is regarded as a form of leverage, Client agrees that PIOS® is not regarded as a levered strategy as positions are managed to align with underlying collateral. However, due to market factors, timing differences, and/or actions taken by Client outside the control of the Investment Manager; or during periods of trading activity by Investment Manager required to achieve Overlay Program objectives, there may be periods where the notional value of the Overlay Portfolio exceeds that of the underlying collateral. By example, if overlay positions to be traded in non-U.S. markets are targeted for purchase, any portion of that purchase requiring offsetting sales in U.S. markets will be managed such that the final value of overlay positions do not exceed the estimated, final value of the underlying collateral.

By way of further example, removing fixed income duration through futures contracts does not typically require sale of a notional amount of contracts equal to the notional amount of underlying fixed income securities held (e.g., \$10 in fixed income holdings with a duration of 5 can become "zero" duration cash through the sale of \$5 in treasury futures with a duration of 10). An opposite example occurs for gaining international equity exposure in that for every dollar of aggregate exposure desired, one dollar of foreign stock index futures contracts plus one dollar of foreign currency futures contracts are needed (e.g., to gain \$10 in FTSE 100 index exposure, \$10 in FTSE 100 futures are required plus \$10 in British pound futures). This is because foreign stock index futures alone do not include exposure to exchange rates.

In each of the foregoing examples, it is the synthetic index exposure which remains unleveraged. By combining the foregoing two principles, the concept of not introducing leverage within the PIOS® program is illustrated:

Assume under the PIOS® program a client fund (“Fund X”) has \$100 in total assets consisting of \$30 in large cap equity securities at a manager with a S&P 500 benchmark, \$50 in fixed income securities with a duration of 5 at a manager with a Barclays Capital Aggregate Index benchmark, \$10 in international equity exposure with an

MSCI EAFE Index benchmark and \$10 in cash. Fund X desires to be fully invested 40% in large cap, 40% in fixed income with a duration of 5, and 20% in international equity. Under the PIOS® program, Investment Manager would purchase \$10 in S&P 500 futures contracts, sell \$5 in fixed income futures contracts with a duration of 10 and purchase \$10 in foreign stock index futures and \$10 in foreign currency futures to bring Fund X into compliance with its asset allocation targets.

The net notional amount of contracts outstanding would be \$25 (long \$10 in S&P index futures minus \$5 short in treasury futures for the fixed income exposure reduction plus \$20 in foreign stock index and currency futures to gain the international equity exposure). Yet the position is neutral from a market exposure stand point because the synthetic index exposure of \$10 in long S&P futures, \$10 in short Barclays index exposure and \$10 in long MSCI EAFE index exposure (with \$10 in currency exposure) does not exceed the then cash amount of \$10 in Fund X.

Notwithstanding the foregoing discussion of leverage, the use of margin, which is a form of leverage, has special consideration as described above under the caption "Special Considerations and Risks."

Permissible Instruments:

The permissible instruments for the Investment Strategy include:

- Domestic and international equity futures
- Domestic and international fixed income futures
- Foreign currency futures, forwards, and physical holdings
- Domestic and international equities
- Exchange Traded Funds (ETFs) and Exchange Traded Notes (ETNs)
- Exchange Traded Options on Equities, ETFs and indexes
- U.S. Government/Agency Securities

Investment Manager will have discretion to employ long or short permissible instruments to seek to achieve the Investment Strategy(ies) consistent with the Investment Objectives and consistent with these guidelines. Client recognizes that this process may produce tracking error with the Benchmark(s). For the avoidance of doubt, the classification of international is determined from a U.S. domiciled perspective unless otherwise stated.

Notification Procedures:

Client acknowledges that Investment Manager's positions may be directly related to the underlying physical investments of the fund. Therefore it is critical that Client notify Investment Manager prior to any material changes in the fund's underlying physical positions. These changes could include, but are not limited to: distributions, contributions, physical rebalancing or reallocations, and manager terminations/additions.

All investment-related items will be provided by Client to Investment Manager by email to: MN-Investments@paraport.com. For all actions deemed actionable or substantive, Client should not consider an email received until Investment Manager responds with an email confirmation. If Client does not receive the confirmation email, Client must call Investment Manager at 952.767.7700. Client is responsible for informing Investment Manager, at its earliest opportunity, of any changes in any managers, manager capital allocations or when asset class assignments are revised.

Reporting:

The Investment Manager will provide the Client with the following:

- If desired by Client, a DTR summarizing the fund's allocations, manager values, overlay positions, and other key Investment Strategy parameters. Client will be able to access the DTR through Investment Manager's website: www.ParametricPortfolio.com.
- A quarterly performance summary report describing the performance of the Investment Strategy.
- A quarterly accounting report reconciled to Client's Custodian statement.
- Access to key employees of Investment Manager's team to address questions or clarify activity.
- Annual performance reviews, or more frequently at Client's request.

Special Considerations and Risks:

Market Risk: The potential that the market moves in an adverse manner causing a loss.

Liquidity Risk: To the extent the overlay position generates a loss in excess of the margin balance or collateral available, the fund will require liquid assets to satisfy any outstanding commitments or experience liquidation of positions.

Margin Pool Risk: The fund may experience losses on the margin pool in addition to potential losses on the index market exposure overlaying these assets.

Options Risks: Client has received, read and understood the Characteristics and Risks of Standardized Options published by The Options Clearing Corporation which includes option sensitivity risk. Unlike a futures-based hedge which immediately removes market exposure on a one-for-one basis, options contracts with time remaining before expiration are less sensitive to changes in market prices. Therefore, prior to expiration, the gain (loss) in the value of the hedge positions will likely be less than the loss (gain) in the underlying portfolio.

OCC Counterparty Risk: The Options Clearing Corporation ("OCC") guarantees that all obligations of the contracts that the OCC clears are fulfilled. The OCC and the options markets have broad discretion in their rules to take a variety of actions in particular circumstances and no party should assume that the OCC or other option market participant will exercise its discretion in a particular way in any particular circumstance. The OCC may

experience a negative credit event that would limit or eliminate its ability to satisfy any outstanding obligations to the Account Assets thus causing a loss to the Client.

Futures Clearinghouse Counterparty Risk: The Futures Clearinghouse guarantees that all obligations of the contracts that the Futures Clearinghouse clears are fulfilled. The Futures Clearinghouse and the futures markets have broad discretion in their rules to take a variety of actions in particular circumstances and no party should assume that the Futures Clearinghouse or other futures market participant will exercise its discretion in a particular way in any particular circumstance. The Futures Clearinghouse may experience a negative credit event that would limit or eliminate its ability to satisfy any outstanding obligations to the Account Assets thus causing a loss to the Client.

Information Risks: As described above, Investment Manager will maintain index market exposures based on designated values provided by one or more third party(ies). The Investment Manager cannot verify these values but will rely on this information as being reflective of true fund values. If actual fund values are different from the values provided by such third parties, losses may result from over or under exposure to the desired index.

Benchmark Exposure Risk: In the implementation of the Investment Strategy(ies), Investment Manager believes there may be tracking error between the actual Overlay Portfolio and benchmark allocations described in these Guidelines. For example, futures contracts may not exist for certain indices. To attempt to track such index results, a blend of futures contracts is utilized. This blend of futures contracts may or may not track the performance of the actual index. This is a form of tracking error. Tracking error could be material. Other sources for tracking error may include, among others:

- Execution value versus previous day's closing index value
- Change in relative futures premiums
- Imprecise benchmark replication
- Mid-day information flows
- Time differences between futures and local market closes
- Transaction and synthetic financing costs

Tracking Error: Exposure Maintenance using the PIOS® synthetic index approach, by gaining or reducing exposure to various asset classes, will modify the systematic or market risk associated with Client's total fund. The non-systematic risk, or tracking error that the individual managers exhibit relative to the asset class benchmark, is not changed by application of PIOS®. Trading error related to Exposure Maintenance component may create significant losses to the Client.

Leverage Risk: Notional exposure in excess of portfolio capital or fund collateral may produce a significant loss to the fund. Futures, options, swaps, and related derivative instruments have the potential to create leverage. In certain situations, Client's Overlay Portfolio, on a temporary or permanent basis, may be exposed to leverage in part by having a notional value of overlay positions which is more than the value of the underlying margin

pool which may produce a significant loss the fund. Leverage introduces special risks and will change the volatility of Client's underlying assets (manager portfolios). If the Overlay Portfolio does create leverage, adverse moves in the overlay positions can require Client to post additional margin beyond those amounts initially deposited. Failure to maintain sufficient margin may result in the closing out of overlay positions in a manner not consistent with these Guidelines.

Market Exposure Timing: In order to achieve anticipated cash level change or desired risk exposure, Investment Manager may trade at the market close one business day before each anticipated cash level change or other market exposures changes. To the extent that any unanticipated change occurs after trades are executed and before other adjustments are made, trades may need to be reversed and Client may experience an unexpected economic outcome.

For clients utilizing the Beta Management of Portable Alpha Investment Strategy, the following section will apply:

Embedded exposure: In Client programs utilizing the Beta Management of Portable Alpha Investment Strategy Client's designated alpha portfolio (e.g. a market neutral hedge fund) may have embedded beta exposure which may cause the portfolio to experience significant losses beyond those realized from the overlay component. This embedded beta exposure would be in addition to the beta exposure maintained by the Investment Manager. Excess beta exposure could result in performance inconsistent with Client's expectations.

(Signature page follows)

There can be no assurance Client will achieve its objective through the use of PIOS®. For all Investment Strategies, Investment Manager seeks to execute transactions on a best efforts basis but makes no assurances in this regard. Past performance does not guarantee future results. Investment Manager does not warrant any rate of return or level of tracking error relative to the Benchmarks.

Completed and Reviewed by Client:

By: _____
Name: Steven J. Jolly, Chair
Date: December 7, 2016

List of Authorized Client Representatives are set forth in Exhibit B.

Completed and Reviewed by Investment Manager:

By: _____
Name: _____
Date: _____

Appendix A

Fund Asset Allocation

The Fund's asset allocation targets and associated benchmark indexes are as follows:

<u>Asset Class</u>	<u>Target %</u>	<u>Benchmark Index</u>
Domestic Equity ¹	17.00%	Russell 3000 Index
International Equity ¹	19.00%	MSCI ACWI ex. US Index
Global Fixed Income ¹	31.00%	Barclays Global Aggregate Index
Private Credit ²	8.00%	Barclays US Aggregate Index + 250 bps
Private Equity ²	6.00%	Russell 3000 Index + 250 bps
Hedge Funds ²	8.00%	HFRI Fund of Funds Index
Real Estate ²	8.00%	NCREIF ODCE Index
Commodities ²	3.00%	DJ UBS Commodity Index

¹Investable Asset Classes.

²Uninvestable Asset Classes.

In order to account for the uninvestable asset classes listed above in the overlay program, the uninvestable asset class targets will be set equal to actual levels, with the difference between the long term target allocation and the actual allocation for each asset class being allocated as follows, resulting in a new, Adjusted Target asset allocation:

<u>Asset Class</u>	<u>Allocation of Difference</u>
Private Credit	Domestic Equity
Private Equity	Domestic Equity
Hedge Funds	Proportional across investable asset classes
Real Estate	Proportional across investable asset classes
Commodities	Proportional across investable asset classes

It is Client's responsibility to establish and revise as necessary the asset class categories.

Appendix B

CASH SECURITIZATION – Fund Level Utilized Not Utilized

Client will designate specific fund level cash accounts to be overlaid by Investment Manager. These assets will be overlaid as described below:

<u>Asset Class</u>	<u>Target %</u>	<u>Benchmark Index</u>
Domestic Equity	36%	Russell 3000 Index
International Equity	24%	MSCI ACWI ex. US Index
Global Fixed Income	40%	Barclays US Aggregate Index ¹

¹For purposes of the overlay program, Investment Manager will target Barclays US Aggregate Index instead of Barclays Global Aggregate Index.

CASH SECURITIZATION – Manager Level Utilized Not Utilized

Investment Manager will invest Manager cash as able in the asset classes as described below. It is Client's responsibility to communicate to Investment Manager which managers should be included in the manager cash overlay for each asset class.

<u>Asset Class</u>	<u>Benchmark Index</u>
Domestic Equity	Russell 3000 Index
International Equity	MSCI ACWI ex. US Index

Appendix C

EXPOSURE MAINTENANCE INCLUDING REBALANCING Utilized Not Utilized

Appendix D

Transition Exposure Management Utilized Not Utilized

_____ Transition Form

Client: _____

	Distribution/Termination	Contributions/New Hire
Manager Name:		
Asset Class:		
Dollar Value:		
Manager Account Type: (check one)	<input type="checkbox"/> Separate Account <input type="checkbox"/> Commingled	<input type="checkbox"/> Separate Account <input type="checkbox"/> Commingled
TCG Action:	<input type="checkbox"/> Buy <input type="checkbox"/> Sell <input type="checkbox"/> None	<input type="checkbox"/> Buy <input type="checkbox"/> Sell <input type="checkbox"/> None
Trade Date:		
Information as to when Investment Manager should trade: (check one)	<input type="checkbox"/> Market Close (NAV) <input type="checkbox"/> Contact Manager – <input type="checkbox"/> Through Download <input type="checkbox"/> Other	<input type="checkbox"/> Market Close (NAV) <input type="checkbox"/> Contact Manager <input type="checkbox"/> Through Download <input type="checkbox"/> Other
Index Exposure to Sell/Buy: (check one)	<input type="checkbox"/> Policy Mix: <input type="checkbox"/> Index: <input type="checkbox"/> Other:	<input type="checkbox"/> Policy Mix: <input type="checkbox"/> Index: <input type="checkbox"/> Other:
Contact for Transition: (i.e. manager, transition manager)	Name: Phone: E-mail:	Name: Phone: E-mail:
Other Comments:		

Authorized Party: _____

Date: _____

Transition positions may create the need for additional margin in Investment Manager's account to support overlay exposure.

If incomplete information is provided by Client or outside party, Investment Manager will work as able to complete necessary transition transaction in a manner which maintains market exposure in an unlevered manner. If incorrect information is provided, leverage or lack of full market exposure may result.

Appendix E

INTEREST RATE MANAGEMENT Utilized Not Utilized

Duration Target:

Duration Range:

Target Calculation:

Investment Manager with duration exposure to be included in duration exposure calculation:

Manager

Duration or Index Benchmark

Other Interest Rate Management monitoring requirements:

Appendix F

CURRENCY EXPOSURE MANAGEMENT Utilized Not Utilized

Benchmark Index:

Foreign Currency Exposure :

If hedge, % of underlying manager exposure to be hedged:

Rebalancing band % :

Rebalancing frequency :

Portfolios selected by Client to be subject to currency overlay are as follows:

Appendix G

BETA MANAGEMENT OF PORTABLE ALPHA COMPONENT Utilized Not Utilized

Benchmark Index:

“Absolute Return” manager(s) to be overlaid:

Embedded Absolute Strategy Beta:

Overlay Management Direction Related to Embedded Beta:

It will be the responsibility of Investment Manager to request regular updates on the value of the designated alpha pool or other overlaid assets for which values are not received from the Custodian. Because Investment Manager does not control these managers, it is possible that Investment Manager will not receive information in a timely manner from such managers or other parties. It is also possible that this information will not be accurate. Client agrees that Investment Manager may rely on such information as provided by the source without further investigation or confirmation.

Manager	Frequency*	Method of Update**	Benchmark Index	Index Bloomberg Ticker (if applicable)

As more managers are added, it will be Client’s responsibility to contact Investment Manager and assist in developing a method for updating values for each new manager.

[*insert daily, weekly, monthly, whatever is applicable]

[**Unaudited value downloaded, Receive email, Unaudited NAV, Receive value from Client, whatever is applicable]

Appendix H

OTHER OVERLAID ASSETS

It will be the responsibility of Investment Manager to request regular updates on the value of the designated alpha pool or other overlaid assets for which values are not received from the Custodian. Because Investment Manager does not control these managers, it is possible that Investment Manager will not receive information in a timely manner from such managers. It is also possible that this information will not be accurate. Client agrees that Investment Manager may rely on such information as provided by the source without further investigation or confirmation.

<u>Manager</u>	<u>Frequency*</u>	<u>Method of Update**</u>	<u>Benchmark Index</u>	<u>Index Btick</u>

As more managers are added, it will be Client's responsibility to contact Investment Manager and assist in developing a method for updating values for each new manager.

[*insert daily, weekly, monthly, whatever is applicable]

[**Unaudited value downloaded, Receive email, Unaudited NAV, Receive value from client, whatever is applicable]

Approved and Confirmed Changes to the Guidelines

Date

Guidelines Change

Verified by

Confidentiality Agreement

This Agreement (the "Agreement") is made as of December 8, 2016, between Morgan Stanley & Co. LLC ("Morgan Stanley") having offices at 1585 Broadway, New York 10036 and Fresno County Employees' Retirement Association (the "Company") having its principal offices at 1111 H. Street, Fresno, California 93721.

The Company and Morgan Stanley hereby agree as follows:

1. In connection with that certain Master Commodities Futures Customer Agreement dated as of the date hereof by and between Morgan Stanley and the Company (the "Futures Agreement"), each party acknowledges that it may have access to or receive from the other party or its affiliates certain information relating to such other party and its affiliates, customers and suppliers, including, but not limited to, products and services; business requirements; software; systems; marketing philosophy, objectives, methodologies and strategies; pricing information; data compilations; specifications; financial information; business methods and strategies; competitive advantages and disadvantages; financial results; technological developments; customer lists, customer names, addresses, telephone numbers, account numbers, transactions and purchasing patterns; supplier names, addresses, and telephone numbers; research and development activities; and a variety of other information and materials that, by their nature, would reasonably be deemed confidential (collectively, "Confidential Information"). For the purposes of this Agreement, the party whose Confidential Information is disclosed to the other party is a "Disclosing Party" with respect to such Confidential Information, and the other party is the "Receiving Party. Each party agrees that all Confidential Information obtained by such party, its affiliates and their officers, directors, partners, agents, consultants, advisors (including external legal, tax and accounting advisors) and employees (collectively, "Representatives"), is, and shall be considered, confidential and proprietary to the Disclosing Party. The Receiving Party agrees that it shall use reasonable efforts to:
 - (a) protect and preserve the confidential and proprietary nature of the Disclosing Party's Confidential Information;
 - (b) not disclose, give, sell or otherwise transfer or make available, directly or indirectly, any Confidential Information of the Disclosing Party to any party who is not a Representative of the Receiving Party for any purpose, except as expressly permitted in writing by the Disclosing Party, except that the Receiving Party may disclose such Confidential Information (i) at the request or demand of a regulatory agency or in connection with an examination, audit or information-seeking exercise by a regulatory agency (ii) pursuant to subpoena or other legal process, or (iii) in compliance with applicable law.
 - (c) limit the dissemination of the Confidential Information of the Disclosing Party to the Receiving Party's Representatives whose duties justify the need to know the Confidential Information, and then only provided that such individuals are obligated to maintain the confidential and proprietary nature of the Confidential Information; and

- (d) protect the Confidential Information of the Disclosing Party obtained hereunder from unauthorized use or disclosure.

Morgan Stanley may not include the Customer's name for marketing purposes.

2. The term "Confidential Information" does not include information that: (a) becomes generally available to the public as a result of disclosure permitted under this Agreement, (b) becomes generally available to the public other than as a result of a disclosure by the Receiving Party or persons under its control, (c) was available to the Receiving Party on a non-confidential basis prior to its disclosure by the Disclosing Party or its agents, (d) becomes available to the Receiving Party on a non-confidential basis from a source other than the Disclosing Party or its agents, provided, however, that such source is not known by the Receiving Party to be bound by a confidentiality agreement with the Disclosing Party or its agents, or (e) is independently developed by the Receiving Party without reference to the Disclosing Party's Confidential Information. The Disclosing Party acknowledges that the Receiving Party may, now or in the future, develop, offer or use products and services similar to those offered or used by the Disclosing Party. Nothing in this Agreement is intended to prohibit or restrict the Receiving Party from developing, offering or using any product or service, or from engaging in discussions with other parties similar to its discussions with the Disclosing Party hereunder, provided that in doing so the Receiving Party does not breach this Agreement.
3. Neither party nor any of its affiliates are making any representation or warranty as to the accuracy or completeness of the any information (including without limitation Confidential Information) provided by them. Neither party shall have any liability resulting from the use of such information supplied by it or its affiliates, except to the extent specified by any separate agreement between the Company and Morgan Stanley.
4. Each party, without prejudice to any rights to judicial relief it may otherwise have at law or in equity, shall be entitled to equitable relief, including injunction and specific performance, in the event of any breach or threatened breach of the provisions of this Agreement.
5. Each party's obligations hereunder with respect to Confidential Information received by such party shall commence on the date such Confidential Information is disclosed and shall terminate and be of no further force and effect with respect to such Confidential Information two (2) years from the date of such disclosure.
6. This Agreement shall be governed by and construed in accordance with the laws of the State of New York, without giving effect to the conflicts laws of New York. Any dispute arising out of this Agreement, if litigated, shall be resolved by Courts in the City and State of New York, and the Company hereby consents to the jurisdiction of such courts and agrees that they are a convenient forum.
7. No failure or delay by either party in exercising any right, power or privilege hereunder shall operate as a waiver thereof, nor shall any single or partial exercise thereof preclude any other or further exercise thereof or the exercise of any right, power or privilege hereunder. This

Agreement may only be modified or waived by a separate and definitive writing signed by the Company and Morgan Stanley.

8. This Agreement is not assignable or transferable without the prior written consent of the other party, (which consent may not be unreasonably withheld), and any attempt to assign or transfer this Agreement without such consent shall have no effect.
9. This Agreement contains the final, complete and exclusive understanding of, and supersedes all prior or contemporaneous, oral or written, agreements, understandings, representations and negotiations between, the parties relating to the exchange of confidential information in relation to the evaluation of a potential business relationship as stated above.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above through their respective, duly authorized officers.

Fresno County Employees' Retirement Association

By: _____

Title: Chair

Name: Steven J. Jolly

Date: December 7, 2016

Morgan Stanley & Co. LLC

By: _____

Title: _____

Name: _____

Date: _____

Morgan Stanley

**MORGAN STANLEY & CO.
LLC**

Master Commodity Futures Customer Agreement

Rev. 07/07

**IMPORTANT INFORMATION ABOUT PROCEDURES FOR OPENING A NEW ACCOUNT
OR ESTABLISHING A NEW CUSTOMER RELATIONSHIP**

To help the U.S. Government prevent the funding of terrorism and money laundering activities, federal law requires all U.S. financial institutions to obtain, verify, and record information that identifies each customer that opens an account.

What this means: When entering into a new customer relationship with Morgan Stanley, the firm will ask for your name, address, date of birth (as applicable), and other identification information. This information will be used to verify your identity. As appropriate, the firm may, in its discretion, ask for additional documentation or information. If all required documentation or information is not provided, Morgan Stanley may be unable to open an account or establish a relationship with you.

COMMODITY FUTURES ACCOUNT APPLICATION

Please complete all of the following information
(attach continuation pages if necessary)
All Fields Mandatory

I. Customer Name/Mailing Address for all Notices and Statements

Legal Name of the beneficial owner of the Account (hereinafter, the "Customer"): Fresno County Employees' Retirement Association

Customer's Legal Address (*address of organization*): 1111 H Street, Fresno, CA 93721

Telephone: (559) 457-0681 Facsimile: (559) 457-0318

Email address to which written notice may be sent: FCERAinvestments@co.fresno.ca.us

Principal Business of Customer: Public Pension Fund

Organized Under the Laws of (*country of organization*): United States

U.S. Soc. Sec./Tax ID No.: 94-2180266

Non-U.S. Government Issued ID No. and Type of ID: N/A

Name of Trustee (*if organized as a Trust*): N/A

Recipient and Mailing Address for Duplicate Statements: (If additional space is needed, please attach a separate page)
Fresno County Employees' Retirement Association, Investments, 1111 H Street, Fresno, CA 93721

II. Financial Statement

Enclose copy of most recent audited/unaudited financial statement (*required for credit review*)

Prime Brokerage Account number (*if Prime Brokered with Morgan Stanley*): _____

III. Customer Designation (*check all that apply, at least one item must be checked*)

- Bank
- Commodity Pool
- Corporation
- Endowment
- ERISA
- Partnership
- Insurance Company
- LLC
- LLP
- Mutual Fund
- State or Municipal Pension Plan
- Trust
- Other: _____

IV. Evidence of Authorization

Please provide a copy of the following applicable document showing Customer's authority to trade futures:

- Corporation - Corporate Resolution
- LLC - Operating Agreement
- LLP - Partnership Agreement
- Partnership - Partnership Agreement
- Trust - Trust Agreement
- Mutual Fund - Prospectus and SAI

Commodity Pool, ERISA, Bank, Insurance Company and other account types please contact Morgan Stanley regarding required documentation.

V. Advisor

Name of person or entity that will control trading in the Account (hereinafter, the "Advisor")

Parametric Portfolio Associates LLC

Or

Not Applicable (Customer will control trading in the Account)

Advisor's U.S. Soc. Sec./Tax ID Number _____

Non-U.S. government issued ID Number: _____

Email address to which written notice may be sent: documentationteam@paraport.com

Customer must execute the Discretionary Trading Authorization (or provide signed authorization designating the Advisor as its agent and attorney-in-fact for purposes of all transactions in the Account) and Advisor must fill out Section VIII of this Application and execute the Representations of Advisor below.

VI. Account Designation *(Check one)*

- Speculative.** Orders placed by Customer for the Account will normally represent speculative transactions.
- Hedge (excluded commodities).** Orders placed by Customer for transactions in excluded commodities (as defined in Section 1a(19) of the Commodity Exchange Act) for the Account will normally represent bona fide hedging transactions as defined in CFTC Rule 1.3(z). **If orders placed for the Account normally represent hedging transactions, please complete Section 10(s)(i) of the Commodity Futures Customer Agreement. Failure to choose one of the above will designate the Account as Speculative.**
- Hedge (exempt and agricultural commodities).** Orders placed by Customer for transactions in exempt commodities (as defined in Section 1a(20) of the Commodity Exchange Act) and agricultural commodities (as defined in CFTC Rule 1.3(zz)) for the Account will normally represent bona fide hedging transactions or positions as defined in CFTC Rule 151.5. **If orders placed for the Account normally represent hedging transactions, please complete Section 10(s)(i) of the Commodity Futures Customer Agreement. Failure to choose one of the above will designate the Account as Speculative.**

VII. Advisor's Representations. To be filled out by Advisor

(a) Advisor is registered as a commodity trading advisor ("CTA") with the Commodity Futures Trading Commission ("CFTC") and a member of the National Futures Association ("NFA") (*check one*):

Yes No

(b) Advisor is registered as a commodity pool operator ("CPO") with the CFTC and a member of the NFA (*check one*):

Yes No

(c) Advisor is exempt or excluded from the obligation to register as a CTA or CPO with the CFTC and, if required, has filed the appropriate notice of exemption from registration with the NFA (*check one*):

Yes No

(d) Advisor's NFA ID number is: 0218314. If Advisor does not have an NFA ID please see section VIII(g) hereof.

(e) If the Advisor is an exempt CPO that has filed a notice of exemption with the NFA, Advisor has listed the following commodity pools under its registration or exempt notice filing:

(f) The Customer is among the commodity pools listed above as Pool Exemptions under its NFA registration or exemption, as applicable (*check one*):

Yes No

(g) *Please answer the following only if Advisor is not registered with the CFTC as a CTA or CPO and has not filed a notice of exemption from the requirement to register as a CTA or CPO.* Advisor is neither required to register as a CPO or CTA nor obligated to file a notice of exemption from registration.

Yes

If the Advisor has responded affirmatively to the foregoing representation (g), the following explanation sets forth the reasons why Advisor is neither required to register nor obligated to file a notice of exemption:

VII. Individual customers please complete the Commodity Futures Account Application - Individual Customer Application Annex included with these documents.

**** PLEASE COMPLETE ONLY IF YOU HAVE ENGAGED AN ****
ADVISOR TO DIRECT YOUR ACCOUNT
DISCRETIONARY TRADING AUTHORIZATION

The undersigned Customer hereby authorizes Parametric Portfolio Associates LLC (the Advisor”) as its agent and attorney-in-fact to purchase, sell and trade in commodity futures contracts, options thereon, foreign futures and options thereon and interests therein (in each case, as defined under Applicable Law), and including, without limitation, exchange-for-physical, exchange-for-swap, exchange-for-risk, exchange-for-options or exchange-for-related-positions transactions, block trades, OTC derivative instruments, including cleared OTC derivatives and cleared swaps, approved under Applicable Law for trading or clearing on a designated contract market, derivatives clearing organization, exempt commercial market or foreign board of trade or foreign clearing organization and to the extent not governed by any other agreement between the parties, commodities delivered as a result of the settlement of any of the foregoing, in accordance with Morgan Stanley & Co. LLC’s (“Morgan Stanley”) terms and conditions for Customer’s account and risk and in Customer’s name or number on Morgan Stanley’s books. Customer hereby confirms it has received a copy of Advisor’s disclosure document or has received a written statement from Advisor explaining why the Advisor is not required to provide a disclosure document. Capitalized terms used herein and not otherwise defined shall have the meanings set forth in the accompanying Commodity Futures Customer Agreement.

This authorization is in addition to (and in no way limits or restricts) any rights which Morgan Stanley may have under the Morgan Stanley Commodity Futures Customer Agreement executed by Customer and any other agreement or agreements between Morgan Stanley and Customer.

This authorization may be terminated by Customer at any time as of the actual receipt by Morgan Stanley of written notice of termination. Termination of this authorization shall not affect any liability in any way resulting from transactions initiated prior to such termination. This authorization shall inure to Morgan Stanley’s benefit and that of Morgan Stanley’s successors and assigns.

Fresno County Employees’ Retirement Association
(Name of Customer - Please Print)

(Signature) (Date)

Steven J. Jolly, Chair
(Name & Title - Please Print)

REPRESENTATIONS OF ADVISOR

The undersigned Advisor acknowledges that it has been designated as Customer’s agent and attorney-in-fact pursuant to the Discretionary Trading Authorization executed herewith. Capitalized terms used herein and not otherwise defined shall have the meanings set forth under the Commodity Futures Customer Agreement (the “Agreement”) executed herewith. In this regard, Advisor hereby represents and warrants to Morgan Stanley & Co. LLC, which representations and warranties shall be deemed repeated on each day that a transaction in Contracts is open in the Account, as follows: (a) the Advisor is either appropriately registered as a commodity pool operator or commodity trading advisor with the CFTC and a member of the National Futures Association or exempt or excluded from such registration requirements; and (b) if and to the extent required, the Advisor has provided and will continue to provide Customer with an explanation of the nature and risks of transactions to be executed for Customer’s Account under this Agreement; and (c) if required, the Advisor has provided Customer with a copy of its most recent CFTC Disclosure Document, or has provided Customer with a written explanation of the reason why it is not required to deliver a Disclosure Document to Customer. Capitalized terms used herein and not otherwise defined shall have the meanings set forth in the accompanying Commodity Futures Customer Agreement.

Parametric Portfolio Associates LLC
ADVISOR

By: _____

Title: _____

Date: _____

COMMODITY FUTURES CUSTOMER AGREEMENT

This Commodity Futures Customer Agreement (“Agreement”) between Morgan Stanley & Co. LLC (“Morgan Stanley”) and the undersigned customer named below (“Customer”) or, as applicable, by and through the advisor designated by Customer to control trading in the Account (as defined below) (the “Advisor”), which Advisor, if applicable, is acting hereunder solely as agent for such Customer and not in a principal capacity, shall govern the purchase and sale by Morgan Stanley of commodity futures contracts, options thereon, foreign futures and options thereon and interests therein (in each case, as defined under Applicable Law, as defined below), and including, without limitation, exchange-for-physical, exchange-for-swap, exchange-for-risk, exchange-for-options or exchange-for-related-positions transactions, block trades, over-the-counter (“OTC”) derivative instruments, including cleared OTC derivatives and cleared swaps, approved under Applicable Law for trading or clearing on a designated contract market, swaps execution facility, derivatives clearing organization, exempt commercial market or foreign board of trade or foreign clearing organization and to the extent not governed by any other agreement between the parties, commodities delivered as a result of the settlement of any of the foregoing (collectively, “Contracts”) for the account and risk of Customer through one or more accounts, including reactivated and duplicate accounts, carried by Morgan Stanley or its affiliates on behalf and in the name of Customer (collectively, the “Account”). All transactions in Contracts hereunder are part of and constitute a single agreement between the parties.

1. **[Reserved.]**
2. **Applicable Law.** The Account and all Contracts, transactions and agreements in respect of the Account shall be subject to all applicable Federal, state, exchange, clearing house and self-regulatory organization rules, regulations and interpretations and custom and usage of the trade. All such rules, regulations, interpretations, custom and usage, as in effect from time to time, are hereinafter collectively referred to as “Applicable Law.”
3. **Customer's Representations and Warranties.** At the time of entering into this Agreement and again upon the entry into any Contracts or transactions under this Agreement, Customer represents and warrants that (a) Customer has full right, power and authority to enter into this Agreement, and the person executing this Agreement on behalf of Customer is authorized to do so; (b) this Agreement is binding on Customer and enforceable against Customer in accordance with its terms; (c) Customer may lawfully establish and open the Account for the purpose of effecting purchases and sales of Contracts through Morgan Stanley; (d) transactions entered into pursuant to this Agreement will not violate any Applicable Law to which Customer is subject or any agreement to which Customer is subject or a party; (e) all of Customer’s information in the Account Application preceding this Agreement (which Application and the information contained therein hereby is incorporated into this Agreement) is true and correct in all material respects and Customer shall promptly (and in no event later than within one business day) notify Morgan Stanley of any change in such information; and (f) Customer has made no changes to this form of Agreement, or any other form of agreement, authorization, tax form or other document relating to this Agreement or the Account(s), provided by Morgan Stanley, unless Morgan Stanley agrees otherwise in writing, except as agreed between the parties.
4. **Payment Obligations Of Customer.** Customer shall pay Morgan Stanley upon demand (a) all brokerage charges, give-up fees, commissions and service fees as Morgan Stanley and Customer may from time to time agree ; (b) all exchange, clearing house, National Futures Association (“NFA”) or clearing member fees or charges; (c) any tax imposed on such transactions by any competent taxing authority; (d) the amount of any trading losses in the Account; (e) any debit balance or deficiency in the Account; (f) interest on any debit balances or deficiencies in the Account, at the overnight rate customarily charged by Morgan Stanley, together with costs and reasonable attorneys' fees incurred in collecting any such debit balance or deficiency; and (g) any other amounts owed by Customer to Morgan Stanley with respect to the Account or any transactions therein.
5. **Customer's Events Of Default; Morgan Stanley's Remedies.**
 - (a) **Events of Default.** As used herein, each of the following shall be deemed an “Event of Default”: (i) the commencement of a case under any Federal or state bankruptcy, insolvency or reorganization law, or the filing of a petition for the appointment of a receiver by or against Customer, an assignment made by

Customer for the benefit of creditors, an admission in writing by Customer that it is insolvent or is unable to pay its debts when they mature, or the suspension by the Customer of its usual business or any material portion thereof; (ii) the issuance of any warrant or order of attachment against the Account or the levy of a judgment against the Account; (iii) if Customer is an employee benefit plan, the termination of Customer or the filing by Customer of a notice of intent to terminate with a governmental agency or body, or the receipt of a notice of intent to terminate Customer from a governmental agency or body, or the inability of Customer to pay benefits under the relevant employment benefit plan when due; (iv) the failure by Customer to deposit or maintain margins, to pay required premiums, or to make payments required by Section 4 hereof; (v) if Morgan Stanley determines, in good faith and a commercially reasonable manner, that any material representation or warranty made by Customer to Morgan Stanley is untrue or inaccurate; (vi) the failure by Customer to perform, in any material respect, its obligations hereunder, which failure is not cured within two business days after notice thereof is provided to Authorized Agent.

(b) **Remedies.** Upon the occurrence of an Event of Default, Morgan Stanley shall have the right, in addition to any other remedy available to Morgan Stanley at law or in equity, to liquidate any or all open Contracts held in or for the Account (including without limitation, through the use of exchange for physical transactions, exchange for swaps transactions, block trades or any other means) , sell any or all of the securities or other property of Customer held by Morgan Stanley and to apply the proceeds thereof to any amounts owed by Customer to Morgan Stanley, borrow or buy any options, securities, Contracts or other property for the Account and cancel any unfilled orders for the purchase or sale of Contracts for the Account, or take such other or further actions Morgan Stanley, in its commercially reasonable discretion, deems necessary or appropriate for its protection, all without demand for margin and without notice or advertisement. Any such action may be made at the discretion of Morgan Stanley in any commercially reasonable manner. In the event Morgan Stanley's position would not be jeopardized thereby, Morgan Stanley will make commercially reasonable efforts under the circumstances to notify Customer prior to taking any such action, provided, however, to the extent such action is subject to the UCC, Morgan Stanley shall notify Customer in a manner consistent with the UCC in the state of New York. A prior demand or margin call of any kind from Morgan Stanley or prior notice from Morgan Stanley shall not be considered a waiver of Morgan Stanley's right to take any action without notice or demand. In the event Morgan Stanley exercises any remedies available to it under this Agreement, Customer shall reimburse, compensate and indemnify Morgan Stanley for any and all costs, losses, penalties, fines, taxes and damages that Morgan Stanley may incur, including reasonable attorneys' fees incurred in connection with the exercise of its remedies and the recovery of any such costs, losses, penalties, fines, taxes and damages ("Damages"), except to the extent such Damages were to result of Morgan Stanley's gross negligence or willful misconduct.

6. **Limitation Of Liability.** Neither Morgan Stanley nor its affiliates shall have any responsibility or liability to Customer hereunder (i) in connection with the performance or non-performance by any contract market, clearing house, clearing firm, electronic trading system, facility or service (collectively "Electronic Trading Systems"), (including, without limitation, floor brokers and banks and provided that Morgan Stanley agrees to accept responsibility and liability for affiliated third parties to the same extent as specified below for Morgan Stanley) to Morgan Stanley of its obligations in respect of any Contract or other property of Customer; (ii) as a result of any prediction, recommendation or advice made or given by a representative of Morgan Stanley whether or not made or given at the request of Customer; (iii) as a result of Morgan Stanley's reliance on any instructions, notices and communications that it reasonably believes to be that of an individual authorized to act on behalf of Customer; (iv) as a result of any delay in the performance or non-performance of any of Morgan Stanley's obligations hereunder directly or indirectly caused by the occurrence of any contingency beyond the control of Morgan Stanley including, but not limited to, the unscheduled closure of an exchange or contract market or delays in the transmission of orders due to breakdowns or failures of transmission or communication facilities, execution, and/or trading facilities or other systems (including, without limitation, any Electronic Trading System), it being understood that Morgan Stanley shall be excused from performance of its obligations hereunder for such period of time as is reasonably necessary after such occurrence to remedy the effects therefrom; (v) as a result of any action taken by or on behalf of Morgan Stanley or its floor brokers as required by Applicable Law in Morgan Stanley's sole discretion, acting in good faith; (vi) for any acts or omissions of those neither employed nor supervised by Morgan Stanley; or (vii) in connection with or arising out of any services provided under any

electronic trading agreement ("Electronic Trading Services") between Customer and Morgan Stanley (the terms and conditions of which in their entirety are incorporated herein by reference). Further, with respect to any Electronic Trading Services Morgan Stanley expressly disclaims any representation or warranty whatsoever (a) with respect to accuracy, completeness or timeliness of such services, (b) that such services shall be uninterrupted or error free; and (c) including any implied warranties of title, non-infringement, merchantability or fitness for a particular purpose relating to such services. Morgan Stanley shall not be responsible for any loss, liability, damage or expense except to the extent that such loss, liability, damage or expense arises from its gross negligence or willful misconduct. In no event will Morgan Stanley be liable to Customer for consequential, incidental, punitive or special damages hereunder. Except as provided in Section 4 above, Customer shall not be liable to Morgan Stanley for consequential, incidental, punitive or special damages hereunder.

7. **General Agreements.** The parties agree that:

- (a) **Morgan Stanley's Responsibility.** Morgan Stanley is not acting as a fiduciary, foundation manager, commodity pool operator, commodity trading advisor or investment adviser in respect of any Account opened by Customer. Customer is acting for its own account and has made its own independent decisions to effect transactions in Contracts and as to whether each transaction is prudent or appropriate for it based on Customer's own judgment and upon advice from such advisors as it has deemed necessary. Customer is solely responsible for any trading decisions including order routing decisions made by Customer. Morgan Stanley does not make any recommendation as to where such orders should be executed and does not undertake to notify Customer of price improvement opportunities or more advantageous execution quality at particular exchange venues. Morgan Stanley shall have no responsibility hereunder for compliance with any law or regulation governing the conduct of fiduciaries, foundation managers, commodity pool operators, commodity trading advisors or investment advisers.

Without limitation of the foregoing, if Customer is an investment company registered under the Investment Company Act of 1940 (i) Morgan Stanley shall comply with the segregation requirements of Section 4d(2) of the Commodity Exchange Act (the "CEA") and the rules of the Commodity Futures Trading Commission ("CFTC") promulgated pursuant to the CEA ("CFTC Rules") or, if applicable, Part 30 of the CFTC Rules with respect to assets deposited by Customer hereunder; (ii) Morgan Stanley, as appropriate to Customer's transactions and in accordance with the CEA and CFTC Rules (including Part 30 of such Rules), may place and maintain Customer's assets to effect Customer's transactions with another futures commission merchant, a clearing organization or a foreign bank (as such terms are defined under Rule 17f-6 of the Securities and Exchange Commission ("SEC") promulgated pursuant to the Investment Company Act of 1940) or a member of a foreign board of trade, and shall obtain an acknowledgement, as required under CFTC Rules 1.20(a) or 30.7(c), as applicable, that such assets are held on behalf of Morgan Stanley's customers in accordance with the provisions of the CEA; and (iii) Morgan Stanley shall promptly furnish copies of or extracts from its records or such other information pertaining to Customer's assets as the SEC through its employees or agents may request.

- (b) **Advice.** All advice communicated by Morgan Stanley with respect to any Account opened or transactions effected by Customer hereunder is incidental to the conduct of Morgan Stanley's business as a futures commission merchant and such advice will not serve as the primary basis for any decision made by or on behalf of Customer. Morgan Stanley shall have no discretionary authority, power or control over any decisions made by or on behalf of the Customer in respect of the Account, regardless of whether Customer relies on the advice of Morgan Stanley in making any such decision. Customer acknowledges that Morgan Stanley and its managing directors, officers, employees and affiliates may take or hold positions in, or advise other customers concerning, contracts that are the subject of advice from Morgan Stanley to Customer. The positions and advice of Morgan Stanley and its managing directors, officers, employees and affiliates may be inconsistent with or contrary to positions of, and the advice given by, Morgan Stanley to Customer.

- (c) **Recording.** Each party may, in its commercially reasonable discretion, record, on tape or otherwise, any telephone conversation between Morgan Stanley and Customer involving their respective officers, agents and employees, and each party hereby agrees and consents thereto.
- (d) **Acceptance of Orders; Position Limits.**
- (i) Morgan Stanley shall have the right to limit the size of open positions (net or gross) of Customer with respect to the Account at any time and to refuse acceptance of orders to establish new positions, whether such refusal or limitation is required by, or based on position limits imposed under, Applicable Law. Morgan Stanley shall promptly notify Customer of its rejection of any order. To the extent permitted by Applicable Law, Morgan Stanley is authorized to combine orders for Customer's Account with orders for other customers. Unless specified by Customer, Morgan Stanley may designate the exchange or other markets (including, without limitation, an exchange's electronic trading platform) on or through which it will attempt to execute orders.
 - (ii) Customer shall file or cause to be filed all applications or reports required under Applicable Law with the CFTC or the relevant contract market or clearing house, and shall provide Morgan Stanley with a copy of such applications or reports and such other information as Morgan Stanley may reasonably request in connection therewith.
- (e) **Original and Variation Margin; Premiums; Other Contract Obligations.** Customer shall make, or cause to be made, all applicable original margin, variation margin, intra-day margin and premium payments, and perform all other obligations attendant to transactions or positions in such Contracts, as may be required by Applicable Law or by Morgan Stanley. Requests for margin deposits and/or premium payments may, at Morgan Stanley's election, be communicated to Customer orally, telephonically or in writing. Customer margin deposits and/or premium payments shall be made by wire transfer to Morgan Stanley's Customer Segregated Account or Secured Amount Account, as the case may be, and shall be in U.S. dollars unless Morgan Stanley agrees otherwise in writing.

If Customer receives a request for margin deposits and/or premium payments before 12:00 p.m. (New York Time) on any Business Day, then Customer shall deposit such margin deposits and/or premium payments with Morgan Stanley pursuant to this section by no later than 6:00 p.m. (New York Time) on the same Business Day; if Customer receives a request for margin deposits and/or premium payments after 12:00 p.m. (New York Time) on any Business Day, then Customer shall deposit such margin deposits and/or premium payments with Morgan Stanley pursuant to this section by no later than 10:00 a.m. (New York Time) on the next Business Day.

- (f) **Security Interest and Rights Respecting Collateral.** Customer hereby assigns, pledges and transfers to Morgan Stanley and grants to Morgan Stanley, and to any of its affiliates that may from time to time hold Contracts or Collateral for or on behalf of Customer in connection with the execution or clearing of any transaction in such Contracts or settlement or custody of such Collateral, a security interest in and continuing, unencumbered first priority lien on all of Customer's right, title and interest in (a) the Account and all assets (including security entitlements, commodity contracts, financial assets, proceeds, and investment property (each as defined in the New York Uniform Commercial Code ("UCC"))) credited thereto, including assets held by any clearing organization or other any other intermediary in respect of Contracts, as well as other property of Customer (including any securities accounts, commodity accounts, security entitlements, commodity contracts, financial assets and investment property (each as defined in the UCC)) held in respect of Contracts by or for Morgan Stanley, any clearing organization or any intermediary acting for Morgan Stanley in connection with any transaction in Contracts; and (b) Customer's Contracts and all rights to payment thereunder (collectively, the "Collateral"). The foregoing grant of security secures, to the extent permissible by Applicable Law, all obligations of Customer now or hereafter owing to Morgan Stanley or its affiliates, as applicable, including, without limitation, all Losses incurred by Morgan Stanley in connection with the enforcement of this Agreement and the security interest created hereunder. Customer hereby represents and warrants to Morgan Stanley that Customer owns the Collateral free and clear of all liens, claims,

charges and encumbrances, and has the full power and authority to pledge the Collateral to Morgan Stanley pursuant to the terms of this Section 7(f). Upon the occurrence of an Event of Default, Morgan Stanley shall have and may exercise in respect of the Collateral, in addition to all other rights and remedies provided for herein or otherwise available to it pursuant to Applicable Law, at law or in equity, all the rights and remedies of a secured party upon default under Applicable Law, including but not limited to the UCC, whether or not the UCC applies to the affected Collateral, to the fullest extent permitted under Applicable Law. Customer agrees to execute any documents reasonably required by Morgan Stanley for the perfection or negotiation of such general lien or security interest. Customer acknowledges that Morgan Stanley and certain of its affiliates have entered into a control agreement under which Collateral could be made available to satisfy Customer's obligations to one or more such affiliates upon a default or termination event in respect Customer's account relationship with such affiliate. Customer and Morgan Stanley agree that Morgan Stanley's use of the Collateral shall at all times be subject to and in accordance with Applicable Law.

(g) **Reports and Objections.** All confirmations, purchase and sale notices, correction notices and account statements (collectively, "Statements") shall be submitted to Customer and absent manifest error shall be conclusive and binding on Customer unless Customer notifies Morgan Stanley of any objection thereto prior to the opening of trading on the contract market on which such transaction occurred on the business day following the day on which Customer receives such Statement; *provided* that, with respect to monthly Statements, Customer may notify Morgan Stanley of any objection thereto within five business days after receipt of such monthly Statement, provided the objection could not have been raised at the time any prior Statement was received by Customer as provided for above. Any such notice of objection, if given orally to Morgan Stanley, shall be promptly confirmed in writing by Customer..

(h) **Delivery Procedures; Options Allocation Procedure.**

(i) Customer will provide Morgan Stanley with instructions either to liquidate Contracts previously established by Customer, make or take delivery under any such Contracts, or exercise options entered into by Customer, within such time limits as may be reasonably specified by Morgan Stanley. Morgan Stanley shall have no responsibility to take any action on behalf of Customer or positions in the Account unless and until Morgan Stanley receives oral or written instructions reasonably acceptable to Morgan Stanley indicating the action Morgan Stanley is to take. Funds sufficient to take delivery pursuant to such Contract or deliverable grade commodities to make delivery pursuant to such Contract must be delivered to Morgan Stanley at such time as Morgan Stanley may reasonably require in connection with any delivery.

(ii) Short option Contracts may be subject to exercise at any time. Exercise notices received by Morgan Stanley from the applicable contract market with respect to option Contracts sold by Customer may be allocated to Customer pursuant to a random allocation procedure, and Customer shall be bound by any such allocation of exercise notices. In the event of any allocation to Customer, unless Morgan Stanley has previously received instructions from Customer, Morgan Stanley's sole responsibility shall be to use its best efforts to notify Customer of such allocation.

(iii) If Customer fails to comply with any of the foregoing obligations in this section 7(h), Morgan Stanley may, in its commercially reasonable discretion, liquidate any open positions, make or receive delivery of any commodities or instruments, or exercise or allow the expiration of any options, in such manner and on such terms as Morgan Stanley, in its commercially reasonable discretion, deems necessary or appropriate, and Customer shall indemnify and hold Morgan Stanley harmless, save for Morgan Stanley's gross negligence or willful misconduct, as a result of any action taken or not taken by Morgan Stanley in connection therewith or pursuant to Customer's instructions.

(i) **Financial and Other Information.** Customer shall provide to Morgan Stanley such financial information regarding Customer as Morgan Stanley may from time to time reasonably request. Customer

shall notify Morgan Stanley promptly (and no later than within three business days) if the financial condition of Customer changes materially and adversely from that shown in the most recent financial information theretofore provided to Morgan Stanley. An investigation may be conducted pertaining to Customer's credit standing and business. If Customer engages in exchange of futures for physical transactions, exchange of futures for swap transactions, or similar transactions, Customer agrees to provide Morgan Stanley, upon request, with documentation of the cash or swap transaction in commodities or securities underlying contracts associated with the transaction.

- (j) **Currency Exchange Risk.** Customer shall bear all risk and cost in respect of the conversion of currencies incident to transactions effected on behalf of Customer pursuant hereto.
- (k) **Inactive Accounts.** Customer acknowledges that Morgan Stanley may deactivate accounts with no trading activity and agrees to provide Morgan Stanley with any information and documents reasonably requested by Morgan Stanley in connection with Customer's request to reactivate a closed account.
- (l) **Cross-Trade Consent.** The undersigned Customer hereby agrees that Morgan Stanley & Co. LLC, its managing directors, officers, employees, affiliates, agents and floor brokers where acting on Morgan Stanley & Co. LLC's behalf, in any transaction for the undersigned Account may take the other side of the transaction, subject to the transaction being executed at the prevailing price and in accordance with the regulations of the applicable exchange and the rules and regulations of the CFTC.
- (m) **Authorization to Transfer Funds.** Customer hereby authorizes Morgan Stanley, upon specific, written instructions of Customer or Customer's duly authorized Advisor and in accordance with Applicable Law and Morgan Stanley's operational procedures and controls, to transfer funds, securities or other property from any account maintained by Customer to any other account of Customer maintained by Morgan Stanley or any of its affiliates in connection with and for the sole purpose of executing, clearing and settling transactions in respect of Contracts under this Agreement and in accordance with such instructions (which, for the avoidance of doubt, may include transfers of available excess equity in one account to another account, in accordance with Customer's standing written instructions).
- (n) **Give Up Transactions.** Give-Ups. Absent a separate written agreement with Customer with respect to give-ups, Morgan Stanley, in its sole discretion, may, but shall not be obligated to, accept from other brokers Contracts executed by such brokers and to be given up to Morgan Stanley for clearance or carrying in any Account.

8. **Termination.** This Agreement may be terminated at any time by Customer upon written notice or by Morgan Stanley upon 3 days' prior written notice (absent an Event of Default in which case Morgan Stanley may terminate immediately upon written notice). In the event of such notice, Customer shall either close out open positions in the Account or arrange for such open positions to be transferred to another futures commission merchant. Upon satisfaction by Customer of all of Customer's Liabilities, Morgan Stanley shall transfer to another futures commission merchant all Contracts, if any, then held for the Account, and shall transfer to Customer or to another futures commission merchant, as Customer may instruct, all cash, securities and other property held in the Account, whereupon this Agreement shall terminate. Termination of this Agreement shall not release any party from any liability or obligation incurred or arising from activities prior to such termination.

9. **Miscellaneous.**

- (a) **Severability.** If any provision of this Agreement is, or at any time becomes, inconsistent with any present or future law, rule or regulation of any exchange or other market, sovereign government or regulatory or self-regulatory body thereof, and if any of these authorities have jurisdiction over the subject matter of this Agreement, the inconsistent provision shall be deemed superseded or modified to conform with such law, rule or regulation but in all other respects, this Agreement shall continue and remain in full force and effect.
- (b) **Binding Effect.** This Agreement shall be binding on and inure to the benefit of the parties and their successors. In the event that Morgan Stanley (i) merges with another entity, or (ii) ceases to be a FCM or

(iii) is required by Applicable Law to transfer its Customer accounts to another FCM, Morgan Stanley shall have the right to transfer or assign this Agreement (and thereby the Account) to any successor entity or to another properly registered futures commission merchant in its sole and absolute discretion and without obtaining the consent of Customer. Notwithstanding the foregoing, in the event of items (ii) or (iii) immediately above, if permitted by Applicable Law and in the event that Morgan Stanley's position would not be jeopardized thereby, Morgan Stanley will make reasonable efforts under the circumstances to consult Customer for its preference of FCM before assigning this Agreement.

- (c) **Independent Investment Adviser.** If Customer directs Morgan Stanley to accept trading instructions from an independent investment adviser ("Advisor"), unless otherwise agreed in writing, Customer hereby appoints such adviser as Customer's agent for the purpose of receiving all communications, notices and requests for instructions related to this Agreement and the transactions effectuated pursuant to this Agreement, including, without limitation, margin calls and any trading information or advice (subject to Section 7(b) hereof). Advisor is authorized to access and use electronic services, facilities and information provided electronically, including but not limited to electronic trading systems, and on behalf of Customer, to agree to the terms and conditions regarding such use and to enter into electronic trading agreements. Customer hereby agrees to indemnify and hold Morgan Stanley harmless from and to pay Morgan Stanley promptly on demand any and all losses arising from Customer's appointment of Advisor; Morgan Stanley shall be protected in continuing to act in reliance on the appointment of the Advisor until Morgan Stanley receives written notice thereof; and termination of the appointment of the Advisor shall not affect any liability in any way resulting from transactions initiated prior to such termination. This indemnity is in addition to (and in no way limits or restricts) any rights which Morgan Stanley may have under this Agreement and any other agreement or agreements between Morgan Stanley and Customer. Nothing in this Section 9(c) shall relieve Customer of any of its obligations under this Agreement.
- (d) **Entire Agreement.** This Agreement contains the entire agreement between the parties and supersedes any prior agreements between the parties as to the subject matter hereof. No provision of this Agreement shall in any respect be waived, altered, modified, or amended unless such waiver, alteration, modification or amendment is signed by the party against whom such waiver, alteration, modification or amendment is to be enforced.
- (e) **Currency Denomination.** Unless another currency is designated in the confirmations reporting transactions entered into by Customer, all margin deposits in connection with such transactions, and a debit or credit in the Account, shall be stated in United States dollars. By placing an order in a Contract settled in a particular currency (the "Contract Currency"), Customer agrees to convert to the Contract Currency funds sufficient to meet the applicable margin requirement. Customer acknowledges its awareness that accruals from trades in Contracts that are priced and settled in non-United States dollars will be held in Customer's account in such non-United States dollar Contract Currency and will not be converted to United States dollars except upon Customer's specific instructions to do so. Any conversions of currency shall be at a rate of exchange determined by Morgan Stanley, in its commercially reasonable discretion, on the basis of the then prevailing rates of exchange for such currencies.
- (f) **Instructions, Notices or Communications.** Except as specifically otherwise provided in this Agreement, all instructions, notices or other communications may be oral or written. Customer hereby waives any defense that such instruction, notice, or communication was not in writing. All oral instructions, unless custom and usage of trade dictate otherwise, shall be promptly confirmed in writing. All written instructions, notices or other communications shall be addressed as follows:
- (i) if to Morgan Stanley:
Morgan Stanley & Co. LLC
One New York Plaza, 7th Floor
New York, New York 10004
Attention: Commodity Operations Manager
 - (ii) if to Customer, at the address as indicated on the Commodity Account Application.

- (g) **Rights and Remedies Cumulative.** All rights and remedies arising under this Agreement as amended and modified from time to time are cumulative and not exclusive of any rights or remedies which may be available at law or otherwise.
- (h) **No Waiver.** Neither party's failure to exercise, delay in exercising, single exercise or partial exercise of any contractual right under this or any other agreement, for Contracts or any other product, on any occasion or series of occasions is or implies waiver of any contractual right under any course of dealing theory or otherwise, and does not preclude any other future exercise, delayed exercise or partial exercise of any contractual right hereunder.
- (i) **Governing Law.** THE INTERPRETATION AND ENFORCEMENT OF THIS AGREEMENT AND THE RIGHTS, OBLIGATIONS AND REMEDIES OF THE PARTIES SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK, WITHOUT REGARD TO PRINCIPLES OF CHOICE OF LAW.
- (j) **Consent to Jurisdiction.** ANY LITIGATION BETWEEN MORGAN STANLEY AND CUSTOMER RELATING TO THIS AGREEMENT OR TRANSACTIONS HEREUNDER SHALL TAKE PLACE IN THE COURTS OF THE STATE OF NEW YORK LOCATED IN THE BOROUGH OF MANHATTAN OR IN THE UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF NEW YORK. CUSTOMER CONSENTS TO THE SERVICE OF PROCESS BY THE MAILING TO CUSTOMER OF COPIES OF SUCH COURT FILING BY CERTIFIED MAIL TO THE ADDRESS OF CUSTOMER AS IT APPEARS ON THE BOOKS AND RECORDS OF MORGAN STANLEY, SUCH SERVICE TO BE EFFECTIVE TEN DAYS AFTER MAILING.

(k) BASED UPON CUSTOMER'S REPRESENTATION TO MORGAN STANLEY THAT CUSTOMER IS A CALIFORNIA PUBLIC PENSION PLAN, MORGAN STANLEY ACKNOWLEDGES THAT CUSTOMER RESERVES ALL IMMUNITIES, DEFENSES, RIGHTS OR ACTIONS ARISING OUT OF ITS SOVEREIGN STATUS, INCLUDING THOSE UNDER THE ELEVENTH AMENDMENT TO THE UNITED STATES CONSTITUTION. NO PROVISION OF THE AGREEMENT SHALL BE CONSTRUED AS A WAIVER OR LIMITATION OF THE IMMUNITIES, DEFENSES, RIGHTS OR ACTIONS DESCRIBED IN THE PREVIOUS SENTENCE; PROVIDED THAT CUSTOMER HEREBY REPRESENTS THAT IT IS AUTHORIZED AND EMPOWERED UNDER THE LAWS OF THE STATE OF CALIFORNIA TO ENTER INTO CONTRACTS UNDER THE AGREEMENT, SUBJECT TO AND TO THE EXTENT CONSISTENT WITH THE INVESTMENT OBJECTIVES AND GUIDELINES SET FORTH IN THE INVESTMENT MANAGEMENT AGREEMENT BETWEEN CUSTOMER AND ADVISOR. NOTHING IN THIS PROVISION SHALL BE CONSTRUED AS MORGAN STANLEY'S WAIVING ANY RIGHTS OR DEFENSE IT HAS UNDER THIS AGREEMENT, INCLUDING ANY RIGHTS UNDER OR DEFENSES APPLICABLE TO ANY CLAIM BY CUSTOMER OF ITS IMMUNITIES DEFENSES, RIGHTS OR ACTIONS ARISING OUT OF ITS SOVEREIGN STATUS. NOTWITHSTANDING SECTION 9(i) ABOVE, ALL ISSUES OF LAW RELATING TO CUSTOMER'S IMMUNITIES DEFENSES, RIGHTS OR ACTIONS ARISING OUT OF ITS SOVEREIGN STATUS SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF CALIFORNIA

- (l) **Consent to Delivery of Electronic Statements.** The CFTC permits a customer to receive daily and monthly statements for its commodity futures accounts by electronic mail in lieu of ordinary mail, subject to obtaining customer consent. ClientLink, an Internet-based system which has been developed by Morgan Stanley, will deliver these statements to you at no additional cost, if you wish to receive them by electronic mail. Customer should be aware of the following: (i) your consent, if given, will be effective upon receipt by Morgan Stanley; (ii) you may revoke your consent at any time by written notice of revocation to Morgan Stanley which will be effective upon receipt by Morgan Stanley; and (iii) any electronic mail statement will be accessible to you on ClientLink for five business days following its initial posting, so please print

out and retain the statement in hard copy form for your use thereafter if you so wish. To indicate your consent to receiving electronic statements in lieu of ordinary mail, please initial the appropriate boxes below.

Customer hereby consents to receiving daily statements with respect to its Commodity Futures Accounts via ClientLink in lieu of ordinary mail.

Customer hereby consents to receiving monthly statements with respect to its Commodity Futures Accounts via ClientLink in lieu of ordinary mail.

(m) **Customer Acknowledgements. (please initial all applicable boxes)**

(i) **If Customer has indicated on the Commodity Futures Account Application that orders placed for the Account represent bona fide hedging transactions, please complete the following.** You should note that CFTC Regulation §190.06 permits you to specify whether, in the unlikely event of Morgan Stanley's bankruptcy, you prefer the bankruptcy trustee to liquidate all positions in the Account. Accordingly, Customer hereby elects as follows: **(please initial):**

Liquidate **Not Liquidate**

If neither alternative is initialed, Customer will be deemed to have elected to have all positions liquidated. This election may be changed at any time by written notice.

(ii) Customer hereby represents and warrants that it is qualified under CFTC Rule 1.55(f) and Morgan Stanley is not required to furnish the specified risk disclosure statement **(please initial):**

No Risk Disclosure Statement Required

(iii) CUSTOMER HEREBY ACKNOWLEDGES THAT IT HAS RECEIVED AND UNDERSTANDS THE FOLLOWING DISCLOSURE STATEMENT PRESCRIBED BY THE CFTC AND FURNISHED HERewith.

Risk Disclosure Statement for Futures Options
(Appendix A to CFTC Rule 1.55(c) transcribed in full on pages 1 - 3 of Booklet 2 - Risk Disclosure Statements)

(n) **Limited Recourse.** Notwithstanding anything to the contrary contained in this Agreement and subject to the adviser's compliance with CFTC Regulation 1.35(a-1)(5), any amounts owed or liabilities incurred by the Customer in respect to any such transaction may be satisfied solely from the assets of the Customer. Without limiting the generality of the foregoing, in no event shall Morgan Stanley and any of its affiliates have recourse, whether by setoff or otherwise, with respect to any amounts owed or liabilities incurred, to or against (i) any assets of any persons or entity (including, without limitation, any person or entity whose account is under the management of the adviser of the Customer) other than the Customer, (ii) any assets of any affiliate of the Customer, or (iii) any assets of the adviser of the Customer or any affiliate of such adviser. Notwithstanding the foregoing, nothing herein shall be construed as a

waiver of any valid claim or cause of action Morgan Stanley may otherwise have against any limited partner, general partner or investment adviser of the Customer independent of the Customer's obligations hereunder.

IN WITNESS WHEREOF, Customer, has executed this Agreement on the date indicated below.

Customer: Fresno County Employees' Retirement Association

(Signature)

December 8, 2016

(Please Print Name and Title)

****FOR CORPORATE ACCOUNTS ONLY****

CORPORATE RESOLUTION

I, _____, the undersigned Secretary of _____, a corporation duly organized and existing under the laws of _____, having its principal office at _____ DO HEREBY CERTIFY that a meeting of the Board of Directors of said Corporation duly held on the _____ day of _____, 201____, the following resolutions were duly adopted, have not been amended, rescinded or revoked and are in conformity with the Charter and Bylaws of said Corporation:

“RESOLVED: That this Corporation open one or more accounts with Morgan Stanley & Co. LLC (“Morgan Stanley”) for the purpose of trading in swaps, commodities and commodity futures contracts, options thereon, foreign futures and options thereon and interests therein (including, without limitation, exchange for physical transactions, exchange for swap transactions, exchange-for-risk, exchange-for-options or exchange-for-related-positions transactions, block trades, over-the-counter derivative instruments, including cleared OTC derivatives and cleared swaps) (collectively “Contracts”)

RESOLVED: That any officer of this Corporation or any employee or agent of this Corporation designated by any such officer be and hereby is authorized to act for the Corporation in every respect concerning the Corporation’s account(s) with Morgan Stanley, the authority hereby granted including the power to do each of the following acts and actions:

- (a) To open one or more accounts in the name of the Corporation with Morgan Stanley for the purpose of trading in commodities and Contracts and to execute in the name of the Corporation and deliver to Morgan Stanley a Morgan Stanley Commodity Futures Customer Agreement including the Cleared Derivatives Transactions Addendum thereto, Authorization to Transfer Funds, Consent to Arbitration, Exchange Agreement, and any other documents or notices necessary to the opening, maintenance and/or trading of such account(s);
- (b) To buy, sell and trade and agree to buy, sell and trade commodities Contracts, on margin or otherwise, whether in the over-the-counter market, subject to the rules or protocols of any multilateral or other trading facility, system or platform, including any communication network or auction facility or any designated contract market or otherwise, which power to sell includes the power to sell “short”;
- (c) To submit for clearing at a clearing organization (including but not limited to, a derivatives clearing organization registered under the Commodity Exchange Act) Contracts carried in one or more accounts with Morgan Stanley or its affiliates;
- (d) To effect and receive payment and delivery in performance of Contracts and commodities orders and any obligations undertaken in connection therewith;
- (e) To deposit with and withdraw from Morgan Stanley any money, commodities, Contracts, securities and other property;
- (f) To receive and promptly comply with any request or demand for additional margin, any notice of intention to liquidate, and any notice or demand of any other nature;
- (g) To receive and acquiesce in the correctness of notices of transactions, statements of account and other records and documents relating to the Corporation’s account(s) with Morgan Stanley;
- (h) To borrow funds from Morgan Stanley or its affiliate to finance any transactions in Contracts or commodities effected through or with Morgan Stanley, and the satisfaction of each and every obligation of the Corporation in connection with the Account(s) and the transactions effected therein; and
- (i) To take such other actions as may be necessary or desirable to carry out the intent of the foregoing.

RESOLVED: That Morgan Stanley be directed to send written confirmations of all trades effected by Morgan Stanley for this Corporation and all statements of account of the Corporation with Morgan Stanley and other pertinent records and documents to _____ (Name and Title of Officer or Agent) who is not authorized to trade in commodities with Morgan Stanley but is hereby authorized to receive and acquiesce in the correctness of such confirmations, statements, and other records and documents;

RESOLVED: That any and all past transactions of the kind provided for by these Resolutions which have been previously made by Morgan Stanley on behalf of or with this Corporation be and hereby are ratified, confirmed and approved in all respects; and

RESOLVED: That Morgan Stanley and any interested third party are authorized to rely and act upon the authority of these Resolutions until receipt by Morgan Stanley of a certificate showing rescission, amendment or modification thereof and signed

by the Secretary of this Corporation under its seal, and that this Corporation will indemnify Morgan Stanley and hold Morgan Stanley harmless from and against any liability, loss, cost or expense it incurs in continuing to act in reliance upon these Resolutions prior to its actual receipt of any such certificate.”

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed the seal of said Corporation this _____ day of _____, 201__.

Secretary

(SEAL OF CORPORATION TO BE AFFIXED HERE)

****FOR PARTNERSHIP ACCOUNTS ONLY****

PARTNERSHIP AUTHORIZATION

The undersigned hereby certify that we are general partners of _____, a partnership organized and existing under the laws of _____ (the "Partnership"), that each of us is of full legal age, and that the Partnership is authorized to trade in swaps, commodities and commodity futures, option and forward contracts and over-the-counter derivative instruments, including cleared OTC derivatives and cleared swaps.

The undersigned further certify that any one of us is authorized to open one or more accounts with Morgan Stanley & Co. LLC ("Morgan Stanley") for the purchase or sale of swaps, commodities and commodity futures, option and forward contracts and over-the-counter derivative instruments, including cleared OTC derivatives and cleared swaps, for and in the name of the Partnership, and to execute for and on behalf of the Partnership a Morgan Stanley Commodity Customer's Agreement including the Cleared Derivatives Transactions Addendum thereto, Authorization to Transfer Funds, Execution Agreement, and any other documents or notices necessary to the opening, maintenance and/or trading of such account(s), and that any one of the following general partners, acting alone, is authorized to act for the Partnership and its members in every respect concerning said account(s) and to do all things necessary or incidental to the conduct and trading of said account(s):

Name _____ Name _____
Name _____ Name _____

In consideration of your maintaining the account(s) of the Partnership the undersigned agree that:

- (1) The undersigned are jointly and severally liable to you for any and all obligations arising out of transactions in or relating to the account(s) of the Partnership with Morgan Stanley.
- (2) If there is any change in this authorization or if any of the partners withdraw from the Partnership, die or are judicially declared incompetent, one of the undersigned will notify you in writing immediately. Until you have actually received such written notice, you shall be entitled to act in reliance on this authorization. The Partnership will indemnify you and hold you harmless from and against any loss suffered or liability incurred in continuing to act in reliance on this authorization prior to your actual receipt of such written notice.
- (3) Upon notice of the withdrawal, death or judicially declared incompetence of any of the partners, you are authorized in regard to the account(s) of the Partnership to take such actions as are described in the Morgan Stanley Commodity Futures Customer Agreement executed in the name of the Partnership for the purpose of terminating said account(s) and satisfying any obligations the partnership may have to you. You may take such actions as though each of the partners remained a partner, were alive and were competent without prior notice to any partner's heirs, executors, administrators, legatees, personal representatives or assigns.
- (4) This authorization shall be considered a part of the Morgan Stanley Commodity Customer's Agreement executed in the name of the Partnership and shall cover, individually and collectively, all accounts of the Partnership at any time opened or reopened with Morgan Stanley, irrespective of any change or changes at any time in the personnel of Morgan Stanley, or its successors, assigns or affiliates, for any cause whatsoever, and shall inure to the benefit of Morgan Stanley and any of its successors or assigns.

Any and all past transactions between the Partnership and Morgan Stanley of the kind provided for by this authorization are hereby ratified, approved and confirmed in all respects.

Dated this _____ day of _____, 201__.

General Partners:

(Signature)

(Name -- Please Print)

(Signature)

(Name -- Please Print)

(Signature)

(Name -- Please Print)

(Signature)

(Name -- Please Print)

**(Please enclose a copy of your Partnership Agreement)
(Please enclose a copy of the Trust Agreement)**

****FOR LIMITED LIABILITY COMPANY ACCOUNTS ONLY****

LIMITED LIABILITY COMPANY RESOLUTION

We the undersigned, constituting all of the [Managing Members/Managers] of _____, a Limited Liability Company duly organized and existing under the laws of _____, having its principal office at _____, DO HEREBY CERTIFY that a meeting of the [Managing Members/Managers] of said Company, duly held on the _____ day of _____, _____, the following resolutions were duly adopted, have not been amended, rescinded or revoked and are in conformity with the articles of organization and operating agreement of said Company:

“RESOLVED: That this Company open one or more accounts with Morgan Stanley & Co. LLC (“Morgan Stanley”) for the purpose of trading in swaps, commodities, commodity futures, option and forward contracts thereon, foreign futures and options thereon and interests therein (including exchange for physical transactions, exchange for swap transactions, exchange-for-risk, exchange-for-options or exchange-for-related-positions transactions, block trades, over-the-counter derivative instruments, including cleared OTC derivatives and cleared swaps) (collectively “Contracts”);

RESOLVED: That any [Managing Member/Manager] of this Company or any employee or agent of this Company designated by any such [Managing Member/Manager] be and hereby is authorized to act for the Company in every respect concerning the Company’s account(s) with Morgan Stanley (“Account(s)”), the authority hereby granted including the power to do each of the following acts and actions:

- (a) To open one or more accounts in the name of the Company with Morgan Stanley (“Account(s)”) for the purpose of trading in Contracts and to execute in the name of the Company and deliver to Morgan Stanley a Morgan Stanley Commodity Futures Customer Agreement including the Cleared Derivatives Transactions Addendum thereto, Authorization to Transfer Funds, Execution Agreement, and any and all other agreements, documents, instruments or notices necessary or relating to the opening, maintenance and/or trading of such Account(s);
- (b) To buy, sell and trade and agree to buy, sell and trade Contracts, on margin or otherwise, whether in the over-the-counter market, subject to the rules or protocols of any multilateral or other trading facility, system or platform, including any communication network or auction facility or any designated contract market or otherwise, which power to sell includes the power to sell “short”;
- (c) To effect and receive payment and delivery in the performance of Contracts and any obligations undertaken in connection therewith;
- (d) To deposit with and withdraw from Morgan Stanley any money, securities, commodities, Contracts and contracts for the purchase or sale of securities and other property;
- (e) To receive and promptly comply with any request or demand for additional margin, any notice of intention to liquidate, and any notice or demand of any other nature;
- (f) To receive and acquiesce in the correctness of notices of transactions, statements of account and other records and documents relating to the Company’s Account(s) with Morgan Stanley;
- (g) To borrow funds from Morgan Stanley or its affiliates to finance any transactions in Contracts effected through or with Morgan Stanley;
- (h) To take other such actions as may be necessary or desirable to carry out the intent of the foregoing and the satisfaction of each and every obligation of the Company in connection with the Account(s) and the transactions effected therein.

RESOLVED: That Morgan Stanley be directed to send written confirmations of all transactions in Contracts effected by Morgan Stanley for the Company and all statements of account of the Company with Morgan Stanley and other pertinent records and documents to _____ (Name and Title of [Managing Member/Manager] or Agent), who is not authorized to trade in contracts with Morgan Stanley but is hereby authorized to receive and acquiesce in the correctness of such confirmations, statements, and other records and documents;

RESOLVED: That any and all past transactions of the kind provided for by the these Resolutions which have been previously made by Morgan Stanley on behalf of or with this Company be and hereby are ratified, confirmed and approved in all respects; and

RESOLVED: That Morgan Stanley and any interested third party are authorized to rely and act upon the authority of these Resolutions until receipt by Morgan Stanley of a certificate showing recession, amendment or modifications thereof and signed by the [Managing Member/Manager] of this Company, and that this Company will indemnify Morgan Stanley and hold Morgan Stanley harmless from and against any liability, loss, cost or expenses it incurs in continuing to act in reliance upon these Resolutions prior to its actual receipt of any such certificate.”

IN WITNESS WHEREOF, we have hereunto subscribed our names this ____ day of _____, ____.

[Managing Members/Managers]:

(Signature)

(Signature)

(Name & Title – Please Print)

(Name & Title – Please Print)

(Signature)

(Signature)

(Name & Title – Please Print)

(Name & Title – Please Print)

****FOR ERISA ACCOUNTS ONLY****

ERISA APPENDIX

EMPLOYEE BENEFIT PLAN REPRESENTATIONS AND AUTHORIZATION

_____ (the “Customer”) and _____ (the “Advisor”), in its individual capacity, as well as in its capacity as agent on behalf of Customer, acknowledge that Morgan Stanley & Co. LLC (“Morgan Stanley”) is entering into this Agreement in reliance on the representations and warranties in this ERISA Appendix. Unless otherwise specified in this ERISA Appendix all capitalized terms used herein shall have the meanings as defined in the Commodity Futures Customer Agreement (the “Agreement”).

1. **Definitions** The capitalized terms herein shall have the following definitions:

“**ERISA**” means the Employee Retirement Income Security Act of 1974, as amended, or any successor statute.

“**Plan**” means an employee benefit plan as defined in Section 3(3) of ERISA, subject to Title I of ERISA, or an entity the assets of which constitute assets of such plan or plans.

“**Investment Management Agreement**” shall mean the investment management agreement between the Customer and Investment Manager.

“**IRS Code**” means the Internal Revenue Code of 1986, as amended, or any successor statute.

“**Plan Sponsor**” means the entity specified herein, if any.

“**PBGC**” means the Pension Benefit Guaranty Corporation or any entity succeeding to any or all of its functions under ERISA.

“**QPAM**” means a “qualified professional asset manager” within the meaning of Part V of the QPAM Exemption.

“**QPAM Exemption**” means Prohibited Transaction Class Exemption 84-14 May 13, 1984 (Amended on October 10, 1985 (50 FR 41430)) issued by the United States Department of Labor, as amended.

“**Trust**” means each employee benefit plan trust established by its relevant trust agreement and that is, or invests through, Customer.

2. Customer and Advisor, in its individual capacity, as well as in its capacity as agent on behalf of Customer each represents and warrants to Morgan Stanley, on the date of the Agreement and on each date through the date the Agreement terminates, that:

(a) **Status of Manager.** Advisor is duly organized, validly existing, and in good standing under the laws of the jurisdiction of its incorporation or organization, is a QPAM within the meaning of the QPAM Exemption with respect to Customer, is properly registered as an investment adviser under the Investment Advisors Act of 1940, and had full power, authority and legal right to enter into the Investment Management Agreement at the time of its execution, (which power, authority and legal right it continues to possess on the date of the Agreement and on each date through the date the Agreement terminates); and the Investment Management Agreement has been duly executed and delivered by all the parties thereto and constitutes the legal, valid, and binding obligation of Advisor, enforceable against Advisor in accordance with the terms thereof;

(b) **Powers of the Advisor.** Advisor, as QPAM for Customer, has the exclusive authority and control under the Investment Management Agreement to negotiate, approve, and execute the Agreement and any other documentation relating to the Agreement and all transaction thereunder, to make all investment decisions for and on behalf of the Plan, to enter into Contracts or transaction under the Agreement on behalf of the Plan, and to cause the Plan to perform its obligations under this Agreement and respecting such transactions and has taken all necessary action to authorize such execution, delivery and performance;

(c) **Absence of Litigation with respect to the Advisor.** There is not pending or threatened against Advisor (in its capacity as investment manager or otherwise) any action, suit or proceeding at law or at equity or before any court, tribunal, government body, agency or official or any arbitrator, that is likely to affect the legality, validity or

enforceability against Advisor and Customer of this Agreement and any other documentation relating to this Agreement and all Contracts or transactions entered into under the Agreement;

- (d) **Investment Guidelines.** The Contracts and transactions entered into under the Agreement comply in all respects with any and all investment guidelines and restrictions applicable to Customer, as amended, supplemented, updated or otherwise modified from time to time, set forth in: (a) the applicable governing documents; (b) the Investment Management Agreement; and (c) any other rule, law, regulation, similar guideline or other document governing the investment by Customer of its assets;
- (e) **General Exemption.** The requirements and conditions of Part I “General Exemption” of the QPAM Exemption have otherwise been met with respect to this Agreement and each Contract or transaction entered into under the Agreement, and such exemption fully exempts the execution, delivery, and performance of the Agreement and Contract or transaction entered into thereunder (and the possession and exercise of each right, remedy, authority, or obligation with respect thereto) from the prohibitions of Section 406 of ERISA and Section 4975 of the IRS Code. Each of Customer and Advisor understands that Morgan Stanley is relying on Part I “General Exemption” set forth under the QPAM Exemption to exempt this Agreement and each Contract or transaction entered into under the Agreement from those prohibitions.
- (f) **Collateral Not “Plan Assets.”** Customer represents that no assets held by or on behalf of Morgan Stanley as Collateral pursuant to a pledge by Customer under Section 6(f) of the Agreement, shall constitute, while so held, "plan assets" within the meaning of Title I of ERISA or Section 4975 of the IRS Code and Customer specifically authorizes Morgan Stanley to rehypothecate and otherwise permit the use by Morgan Stanley of such Collateral. This representation shall be deemed made as of the date of this Agreement and on each date that such assets are held by or on behalf of Morgan Stanley as Collateral pursuant to a pledge by the Plan under Section 6(f) of the Agreement.

[If the Customer is an individual employee benefit plan add Section 3 and 4 below]:

- 3. **Sufficiency of Assets.** Advisor will not enter into a Contract or transaction under the Agreement that may cause the assets of the Plan under the Advisor’s authority and control to be insufficient to satisfy the obligations of the Plan with respect to such Contract or transaction.
- 4. **Recourse.** Customer acknowledges and agrees that sufficient assets of the Trust of the Plan Sponsor, including assets not under the Advisor’s management, are and shall at all times be available to satisfy Customer’s obligations under this Agreement.]

Dated this _____ day of _____, 201____.

IN WITNESS WHEREOF, the parties have executed this ERISA Appendix on the respective dates specified below with effect from the date specified in the Agreement.

Morgan Stanley may rely upon the foregoing representations and warranties until such time as Morgan Stanley shall be notified otherwise in writing.

(Name of Customer -- Please Print)

(Signature) (Date)

(Name & Title -- Please Print)

[INVESTMENT MANAGER], on its own behalf and on behalf of **[CUSTOMER]**

By: _____
Name:
Title:

INCUMBENCY CERTIFICATE

I, Donald C. Kendig, the duly elected Retirement Administrator of Fresno County Employees' Retirement Association (the "Company") do hereby certify the following:

Steven J. Jolly is the duly elected Chair of the Company, and has the authority to enter into and execute contracts and acknowledgments for and on behalf of the Company; and,

Specifically, Steven J. Jolly is authorized to execute the following contracts and acknowledgments for and on behalf of the Company:

- Commodity Customer Agreement by and between Morgan Stanley & Co. LLC and the Company
- Cleared Derivatives Addendum to the Commodity Customer Agreement by and between Morgan Stanley & Co. LLC and the Company
- Commodity Futures Trading Commission Risk Disclosure Statement Acknowledgment

The signature of Steven J. Jolly is as it appears below:

IN WITNESS WHEREOF, I do hereby certify that the foregoing is true and correct as of the date hereof.

By:

Name: Donald C. Kendig, CPA

Title: Retirement Administrator

Dated: _____, 201_

EXECUTION DATE: December 8, 2016

Exhibit B

List of Authorized Client Representatives

The following individuals are, subject to any limitations set forth under "Additional Authorization Requirements," below, each fully authorized to act individually on Client's behalf in relation to all matters contemplated by this Agreement, and to otherwise send and receive all communications to and from Investment Manager:

NAME	TITLE	E-MAIL ADDRESS
Donald C. Kendig, CPA	Retirement Administrator	dkendig@co.fresno.ca.us
Doris Rentschler	Assistant Retirement Administrator	drentschler@co.fresno.ca.us
Conor Hinds	Supervising Accountant	cohinds@co.fresno.ca.us
Steven J. Jolly	Trustee	steven.jolly@wellsfargoadvisors.com

Additional Authorization Requirements:

Client represents, agrees and acknowledges that:

- a) each of the Authorized Representatives are fully authorized by Client to give instruction to Investment Manager and to bind Client with respect to all transactions and other matters contemplated by this Agreement, and to otherwise communicate with Investment Manager without limitation.
- b) communications provided to Investment Manager in electronic format may be relied on by Investment Manager without investigation or verification by Investment Manager that such communication originated from the individual associated with such e-mail or other electronic messaging account.
- c) Client is solely responsible for providing updates to Investment Manager with respect to any changes to this authorization form, and, further, is solely responsible for ensuring that the Authorized Representatives are and remain properly and fully authorized by Client to act on its behalf in relation to all matters contemplated by this Agreement.



Donald C. Kendig, CPA
Retirement Administrator

FRESNO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

BOARD OF RETIREMENT

Steven J. Jolly, Chair
Dr. Rod Coburn, III, Vice Chair
Laura P. Basua
Gregory Baxter
Alan Cade, Jr.
Robert Dowell
Oscar J. Garcia
Eulalio Gomez
Mary Ann Rogozinski, Alternate

INCUMBENCY CERTIFICATE

The FRESNO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION, (the "Client"), hereby certifies that the persons whose names appear below are authorized to act on its behalf, including the authorization to give Proper Instructions, with respect to the Investment Management Agreement between the Client and Parametric Portfolio Associates LLC ("Investment Manager"), dated as of December 8, 2016.

The Client further certifies that the true signature of each such person is set forth below opposite his name, and that the Investment Manager may rely upon this certificate until such time as it receives another certificate bearing a later date.

NAME	TITLE	SIGNATURE
__ Donald C. Kendig	Retirement Administrator	_____
__ Doris Rentschler	Asst. Retirement Administrator	_____
__ Conor Hinds	Supervising Accountant	_____
__ Steven J. Jolly	Trustee	_____

FRESNO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

By: _____
Steven J. Jolly, Chair, Board of Retirement

Date: _____