# KENTUCKY RETIREMENT SYSTEMS INVESTMENT MANAGEMENT AGREEMENT

THIS INVESTMENT MANAGEMENT AGREEMENT (the "Agreement" or "Contract") is entered into as of November \_\_, 2011 by and between Manulife Asset Management (US) LLC ("Manager"), and Kentucky Retirement Systems ("KRS" or "Systems").

## WITNESSETH:

WHEREAS, KRS desires to appoint Manager as investment manager with authority to manage and control a portion of KRS' assets held from time to time (the "Account") pursuant to this Contract;

**NOW, THEREFORE**, in consideration of the foregoing and subject to the terms and conditions set forth herein, the parties hereby agree as follows:

- 1. <u>Designation of Manager; Prudent Person</u>. Subject to the terms and conditions contained in this Agreement, KRS hereby appoints Manager as investment manager of the Account with full power and discretion to manage such assets of the Account as KRS designates, such assets not otherwise being subject to the management or control of another investment manager specifically appointed by KRS. Manager hereby accepts appointment as investment manager of the Account pursuant to the terms of this Agreement. Manager shall discharge its duties under this Agreement solely in the interest of KRS with the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent investment manager acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of like character and with like aims. In addition, Manager is a "fiduciary" of KRS, as that term is defined the U.S. Employee Retirement Income Security Act of 1974, as amended ("ERISA")., with respect to the investment and management of the assets in the Account.
- 2. <u>Custody of Account Assets</u>. KRS has established or will establish one or more investment accounts at a custodian of KRS's choice (the "Custodian"). Title to all Systems' Account assets shall at all times be registered in the name of Systems or the name of the Systems' Master Custodian or its nominee for the account of Systems, and the indicia of ownership of all Systems' Account assets shall at all times be maintained in trust by the Systems' Master Custodian. The Manager shall at no time have the right to physically possess or to have the securities making up the Account registered in its own name or that of its nominee, nor shall the Manager in any manner acquire or become possessed of any income or proceeds distributable by reason of selling, holding or controlling the Account. KRS shall instruct the Custodian to provide the Manager with written statements of the Account, at least monthly, and such other information as Manager may reasonably request from time to time.
- 3. <u>Investment Policy and Procedures</u>. The Manager hereby agrees to provide the services enumerated in Item 1 and Item 2 above in accordance with the Statement of Investment Policy and Procedures (the "Investment Policy"), the current version of which is attached hereto as Attachment I (and also available on the Systems web site) and incorporated herein by this reference, and the Portfolio Guidelines for the Manager (the "Guidelines"), which are attached hereto as Attachment II and incorporated herein by this reference. Manager shall exercise its power and authority with respect to the

Account in accordance with the Investment Policy. The Investment Policy and Guidelines shall remain in effect until such time as KRS approves (in writing) a modification to the Investment Policy or Guidelines. Notwithstanding anything to the contrary contained herein, in the event the terms of the Guidelines conflict with those of the Investment Policy, the terms of the Investment Policy shall control. The Manager will attempt to obtain the "best available price and most favorable execution" with respect to all Account transactions.

4. **Brokerage.** In selecting brokers or dealers, the Manager shall comply with the Investment Brokerage Policy of the Systems (as contained on the Systems web site), and shall use reasonable efforts to seek the most favorable combination of price and execution, and may consider the fact that a broker or dealer has furnished, or has agreed to furnish in the future, statistical, research or other information or services which enhance the Manager's investment research and portfolio management capability for investing the assets. If Manager accepts or receives such information or services from a broker or dealer, then Manager shall report to KRS in accordance with section 18(c)(iv).

Notwithstanding the foregoing, the Manager shall not place orders with any broker/dealer who: (a) KRS has by written notice to the Manager deemed unsuitable for Account trades, (b) is affiliated with the Manager or (c) is affiliated with an investment consultant that provides non-brokerage related services to KRS. The Manager agrees to be bound by any changes to such broker/dealer list upon receipt of written notice from KRS. In addition, the Manager shall not engage in transactions that involve a broker acting as a principal where the broker is also the investment manager, without KRS's advance written consent.

- 5. <u>Performance Objectives.</u> The Manager acknowledges that KRS has established performance objectives for the assets in the Account as are set forth in the Guidelines at Attachment II (the "Performance Objectives"), as the same may be amended from time to time by KRS in writing, and that failure to consistently meet such performance standards may result in termination of this Agreement. The Manager hereby acknowledges that it has reviewed and is familiar with the Performance Objectives. KRS may amend the Performance Objectives by providing written notice to Manager.
- 6. <u>Fees and Terms of Payment</u>. As consideration for the services rendered pursuant to this Agreement, the Manager shall receive a management fee, payable quarterly, and calculated as outlined in Attachment III. If the fees are not paid by KRS, KRS shall cause the Custodian to compensate Manager for its services under this Agreement from the assets of the Account. Except as provided in Attachment III, the Manager shall not be entitled to receive any additional fees or reimbursements for travel expenses, meals, production materials, or any other service or product provided in connection with this Agreement.
- 7. <u>Benefit of More Favorable Terms.</u> For so long as this Contract remains effective, the Manager shall promptly advise Systems of any fee agreement or arrangement between the Manager and any of its clients with similar investment guidelines, asset size, account type, and services rendered that contains more favorable terms than those set forth herein. Systems shall automatically receive the benefit of any such more favorable terms at Systems' option.
- 8. <u>Placement Agents</u>. The Manager agrees that it will remain in compliance with System's Statement of Disclosure and Placement Agents, which is attached hereto as Attachment IV.

Manager represents that the "Statement of Disclosure and Placement Agents - Manager Questionnaire" that it executed on August 10, 2011 remains accurate, and agrees to provide an updated form of "Statement of Disclosure and Placement Agents - Manager Questionnaire" as of the execution of this Agreement. In addition, the Manager represents:

- (a) No fees, bonuses or other compensation, including placement fees or finder's fees, have been promised or paid by or on behalf of the Manager or its agents or affiliates to any placement agent, finder or other individual or entity in connection with KRS's investment, or which could be charged to KRS directly or indirectly.
- (b) None of (i) the Manager, (ii) any placement agent, solicitor, broker-dealer or other agent engaged by the Manager or (iii) any affiliate of the Manager, has a commercial, investment, or business or other similar relationship with a Covered Person, or has engaged in any financial or other transaction with a Covered Person. "Covered Person" means: (i) any Enumerated Person, (ii) any immediate family member of an Enumerated Person (*i.e.*, a spouse, parent, child or sibling), and (iii) any Affiliate of any of the foregoing. "Enumerated Person" means (i) any of the following individuals: Randy J. Overstreet, Vince Lang, Christopher Tobe, Jennifer Landrum Elliott, Bobby D. Henson, Thomas K. Elliot, Tim Longmeyer, Susan Smith, or Robert Wilcher, and (ii) any person which is a trustee, staff member, or employee of KRS.
- (c) Neither the Manager nor any affiliate or agent of the Manager, has offered, promised, or provided, directly or indirectly, anything of economic value to any Covered Person in connection with KRS's investment. Items of economic value include (by way of example, but not by way of limitation) any economic opportunity, future employment, gift, loan, gratuity, entertainment, meals, campaign contribution, finder's fee, placement fee, discount, travel or trip, favor, or service.
- (d) Neither the Manager, nor any affiliate of the Manager, has been convicted of bribery or attempting to bribe an officer or employee of the Commonwealth of Kentucky, nor have any of them made an admission of guilt of such conduct.
- (e) The term "in connection with KRS's investment," as used in this paragraph, includes (i) obtaining an introduction to KRS or any of KRS's officers or employees, and (ii) obtaining a favorable recommendation with respect to KRS's investment. The term "agents," as used in this paragraph, includes anyone who is acting at the behest of any of the persons identified above. An "affiliate" of, or a person "affiliated" with, a specified person, is a person that directly, or indirectly through one or more intermediaries, controls, or is controlled by, or is under common control with, the person specified.
- (f) The Manager agrees to provide KRS notice within 10 business days if it becomes aware that any of the provisions in this paragraph are not true and accurate, either on the date on which made or on any subsequent date.
- (g) The Manager has not made any contributions that would result Manager being disqualified from collecting performance fees under rule 206(4)-5 of the Investment Advisers Act of 1940.
- 9. <u>Authorization</u>. In accordance with this Contract and all Attachments hereto, Manager is hereby authorized, without prior consultation with, or approval of, KRS, to:

- a) use its sole judgment and discretion in the acquisition, placement, maintenance, transfer, swap, sale, or other disposition of any and all Account assets;
- b) bind or commit KRS to any contract(s) or agreement(s) necessary to accomplish its duties and obligations set forth in this Agreement;
- c) direct the Custodian with respect to all powers subject to such direction under any Agreement including, but not limited to, buying and selling securities, signing contracts or other agreements; and
- d) combine orders on behalf of the account with orders on behalf of the Manager or its affiliates or of other clients of the Manager.
- 10. <u>Trading Procedures.</u> All transactions authorized by this Agreement shall be settled through the Custodian, who shall retain sole possession of and have complete custodial responsibility for the assets. The Manager shall notify and instruct the Custodian on (a) orders which the Manager places for the sale or purchase of assets and the management or disposition of such assets, and (b) the purchase or acquisition of other securities or property for the Account. The Manager shall provide the Custodian with such trade information as the Custodian may require to effect settlement, within the time frames as the Custodian may designate. In its sole discretion, KRS may (by giving notice to either the Manager or the Custodian) amend, limit or revoke Manager's above-described authority to direct the Custodian.
- 11. <u>Manager Not Acting as Principal</u>. The Manager shall not act as a principal in sales and/or purchases of the assets, unless the Manager shall have received prior written approval from an Authorized Person (defined below) for such transaction. The Manager shall also not engage in prohibited transactions to the extent set forth in section 406(b) of ERISA, which includes all Covered Persons (as defined in Section 8 hereof).
- 12. <u>Trade Confirmation and Settlement</u>. Where a transaction is eligible for settlement through the Depository Trust Company's Institutional Delivery System, the Manager shall use such System for trade confirmation and settlement. The Manager shall cooperate with KRS's Custodian and other parties to the trade to promptly resolve any trade settlement discrepancies or disputes.
- 13. <u>Discretionary Rights and Powers Affecting the Assets</u>. The Manager may receive information from the Custodian concerning the assets held in the Account, including without limitation, conversion rights, subscription rights, warrants, options, pendency of calls, maturities of securities, expirations of rights, tender and exchange offers, and any other right or power requiring a discretionary decision by the Manager. The Manager shall be responsible for timely directing the Custodian as to the exercise of such rights and/or powers where the Manager has actual knowledge of same, whether by written notice or otherwise.
- 14. <u>Acting on Illegal Information</u>. The Manager shall not place orders to purchase and/or sell any assets on the basis of any material information obtained, or utilized, by the Manager in violation of the securities laws of the United States, or any other country in which the Manager transacts business on the Fund's behalf.
- 15. <u>Account Reconciliation</u>. The Manager shall cooperate with the Custodian to reconcile the Account each month. The Manager shall review all performance and other reports provided to it by

the Custodian with respect to the Account assets, and notify KRS in writing of any material errors or discrepancies that are not reconciled.

- 16. <u>Tax Liabilities</u>. Upon reasonable request by KRS, the Manager shall provide assistance or advise, where appropriate, to KRS should KRS be notified by its custodian that it is required to pay taxes to any government or to file any returns or other tax documents with respect to income earned on the Account assets. When investing in non-US financial instruments, Manager shall determine as part of the investment process whether the foreign jurisdiction imposes withholding tax on income earned by KRS with respect to such instruments, and whether such jurisdiction is likely to refund such withheld amounts to KRS under applicable tax treaties and policies.
  - 17. Manager Representations. Manager hereby represents and acknowledges to KRS that:
  - Manager is duly organized, validly existing and in good standing under the laws of the state of its organization and has complete authority to carry out its business as it has been conducted;
  - b) The execution and delivery of this Agreement and the consummation of the transactions contemplated hereby are within the power of the Manager and have been duly authorized by all necessary corporate action. The Manager has duly executed and delivered this Agreement, and this Agreement constitutes the legal, valid and binding agreement and obligation of the Manager, enforceable against the Manager in accordance with its terms, except insofar as such enforceability may be limited by bankruptcy, insolvency, reorganization, moratorium or other similar limitations on creditors' rights generally and general principles of equity.
  - c) Neither the execution and delivery of this Agreement nor the consummation of the transactions provided herein will violate any agreement to which the Manager is a party or by which it is bound, any law, regulation, order, or any provision of the charter documents of the Manager.
  - d) Manager is a registered investment adviser as defined is the Investment Advisers Act of 1940, as amended ("the Advisers Act"), and therefore eligible to act as an investment manager under ERISA, is registered in or is exempt from registration in accordance with applicable state laws and is not subject to any of the disqualifications set forth in Section 411 of ERISA;
  - e) Manager has completed, obtained, and performed all registrations, filings, approvals, authorizations, consents, or examinations required by any government or governmental authority for acts as contemplated by this Agreement;
  - f) Manager will maintain the following insurance coverage for the duration of the Agreement plus sixty months after expiration or termination of the Agreement. Proof of the existence of such policies shall be provided to KRS annually with the Compliance Certificate in Attachment V:

- i) A fidelity bond in the minimum amount of \$50,000,000. The bond shall cover at a minimum, losses due to dishonest or fraudulent acts or omissions by the Manager; and
- ii) An errors and omissions policy in the minimum amount of \$10,000,000. The policy shall cover, at a minimum, losses caused by errors, omissions, or negligent acts of the Manager.
- g) Manager will immediately notify KRS by telephone (at the telephone number set forth below), upon the receipt of information indicating possible risks of seizure, loss, or loss of use of Account assets. Such telephonic notice shall be followed by written notice to KRS within twenty-four hours;
- h) It has disclosed to KRS directly, any litigation pending, and will notify KRS of all future actions against the Manager, related to the performance of its duties as an investment adviser. It also has, and will in the future, promptly disclose to KRS directly, any pending or future investigation of the Manager by the SEC or any other regulatory authority related to the Manager's performance of duties as an investment adviser; and
- i) Manager will promptly notify KRS in writing in the event any of these representations is no longer true.
- j) The Manager will make all required filings with all applicable regulatory agencies within all prescribed deadlines on behalf of its investments of the assets in the Account.
- k) The Manager shall annually file with KRS a compliance certificate, executed by a responsible officer of the Manager's firm, in the form attached hereto as Attachment V, within thirty (30) days after each June 30.
- 18. **Reporting Requirements**. Manager shall furnish reports in the format specified by KRS upon their reasonable request, including those reports specified in the Guidelines.
  - a) The Manager shall provide annually, after the close of the calendar year:
    - i) A copy of SEC form ADV Part II, any amendments thereto as available;
    - ii) A copy of the Manager's annual report and SAS 70 (if applicable);
    - iii) A Compliance Certificate provided in Attachment V;
    - iv) A report on the Manager's use of soft dollars earned and expended resulting from its duties under this Agreement. The report shall include the products and services obtained through soft dollar arrangements and their approximate value. Otherwise, the Manager shall indicate in writing that soft dollar information is not applicable to this Account.

- b) The Manager shall provide the following information periodically as requested:
  - i) General market intelligence and information relating to industries, businesses, corporations or securities as reasonably requested by KRS;
  - ii) Reports containing the Manager's and affiliates' conflict of interest policies; and
  - iii) Any other such reports regarding the Account as KRS or the Custodian may reasonably request.
- 19. <u>Meetings</u>. On a periodic basis mutually convenient to Manager and KRS, Manager shall meet with KRS to review the Account investments and to discuss current holdings and future placements and acquisitions. Additionally, the individual or individuals assigned by the Manager to the Systems account must be generally accessible by telephone to Systems on a daily basis during regular business hours.
- Change in Status. Manager shall promptly notify KRS in writing of any material change in Manager's business which may effect Manager's ability to perform its duties and responsibilities under this Agreement, including, but not limited to, any change in Manager's status as a registered investment manager, any material litigation, any material adverse changes to the Manager's financial or organizational status or any material change in its senior professional personnel, and any change in personnel involving a KRS Account. It shall promptly notify KRS of any conflicts of interest arising from Manager and its relationship with any entity. If, at the sole discretion of KRS, it is determined that any relationship would be considered a potential or actual conflict of interest, KRS may require Manager to cease dealing with such entity on behalf of KRS.
- 21. KRS Representations. KRS hereby represents to Manager that the execution and performance of this Agreement and the making of investments of the Account in accordance with this Agreement will not violate any provision of the governing documents of KRS, require KRS to obtain any consent or any waiver that has not heretofore been obtained, or violate any contract or other agreement to which KRS is a party or by which it or its assets (including the Account) may be bound or any statute, rule, regulation or order of any governmental body.
- 22. <u>Authorized Parties; Directions to the Manager</u>. KRS may appoint or designate any person or committee to act on its behalf concerning this Agreement and its operation, as it deems appropriate. KRS has furnished to the Manager a list of authorized persons, in Attachment VI ("Authorized Persons"), which it will update from time to time as necessary and until written notice of changes are received by the Manager, the Manager may conclusively rely upon the authority of the Authorized Persons to act on behalf of KRS. All directions to the Manager by or on behalf of KRS shall be in writing signed by one or more Authorized Persons and the Manager shall be fully protected in relying on such directions.
- 23. <u>Assignment</u>. The Manager may not assign, convey, or otherwise transfer any of its rights, obligations, or interests herein without the prior express written consent of KRS.
- 24. <u>Audit or Examination of Records</u>. The Manager agrees that any authorized representative of KRS shall have access to and the right to examine, audit, excerpt and transcribe, any directly pertinent books, documents, papers, and records of the Manager relating to this Agreement upon

reasonable advance notice and during the Managers normal business hours. The Manager shall retain all records relating to this Agreement for five (5) years following the date of final payment or completion of any required audit, whichever is later.

- 25. Reliance on Representations. KRS and the Manager each acknowledge that the other will be relying, and shall be entitled to rely, on the representations, undertakings and acknowledgments of the other set forth in this Agreement. KRS and the Manager each agree to notify the other promptly if any of its representations, undertakings, or acknowledgments set forth in this Agreement ceases to be true.
- 26. **Notice.** All notices, instructions and advices with respect to securities transactions or other matters contemplated by this Contract shall be deemed duly given when delivered to and received by the respective parties as follows (a facsimile transmission is acceptable only for purposes of amending this Contract and only if the receipt of such facsimile is confirmed by the recipient. Electronic mail transmissions are acceptable only for purposes of providing notice or instructions with respect to securities transaction or cash flows. Electronic mail transmissions may not be used to terminate or amend this Contract):

The Manager at:

Mark Flinn

Managing Director, Relationship Management

101 Huntington Avenue Boston, MA 02199

[facsimile: 617.450.8168]

With a copy to:

Carolyn Flanagan General Counsel

101 Huntington Avenue

Boston, MA 02199

KRS at:

T.J. Carlson

Chief Investment Officer 1260 Louisville Rd

Frankfort KY, 40601

[facsimile: 502.696.8889]

With a copy to:

Jennifer Jones

Interim General Counsel 1260 Louisville Rd

Frankfort KY, 40601

Custodian at:

The Northern Trust Company

Attn: Ms. Pam Newton, Vice President

50 South LaSalle Street, B-8

Chicago, IL 60675

[facsimile: 312.557.2710]

- 27. Controlling Law; Jurisdiction and Venue; Waiver. All questions as to the execution, validity, interpretation, construction, and performance of this agreement shall be construed in accordance with the laws of the Commonwealth of Kentucky, without regard to conflict of laws principles thereof. The Manager hereby consents to the jurisdiction of the courts of the Commonwealth of Kentucky and further consents that venue shall lie in the Franklin Circuit Court located in Franklin County, Kentucky. To the extent that in any jurisdiction Manager may now or hereafter be entitled to claim for itself or its assets immunity from suit, execution, attachment (before or after judgment) or other legal process, Manager, to the extent it may effectively do so, irrevocably agrees not to claim, and it hereby waives, same.
- 28. <u>Confidentiality</u>. The Manager shall protect the financial privacy of all information relating to the Account and recognizes that the information is confidential in nature. The Manager's employees and agents shall be allowed access to the information only as needed for their duties related to the Agreement and in accordance with the rules established by the custodian of the records. The Manager shall preserve the confidentiality of the information except where otherwise required by law or requested by an appropriate regulator, and shall maintain positive policies and procedures for safeguarding the confidentiality of such information. The Manager recognizes that it may be liable for the negligent, wanton, or willful release of such information.
- 29. Remedies. In addition to the right to terminate this Agreement, KRS may also file suit against the Manager for breach of duty and/or confidentiality, without limitation. Should KRS obtain a judgment against the Manager as a result of a breach of contract, the Manager consents to such judgment being set-off against any monies owed by KRS to the Manager under this or other contracts. This section shall not be interpreted to limit KRS's remedies as provided for by law.
- 30. <u>Securities Lending</u> The Manager understands that KRS may engage in a "Securities lending program".
- 31. <u>Duration of Contract.</u> The period in which subject services are to be performed is from the date first above written through June 30, 2012. At the expiration of each term, a new term of three years shall automatically be come into being, unless one of the parties hereto notifies the other that they do not wish to renew. In addition, termination or cancellation may be effected at any time by either party as provided below.
- 32. <u>Termination</u>. KRS and Manager reserve the right to terminate this Agreement without penalty under any one of the following circumstances:
  - a) At KRS's discretion, with or without cause, after five (5) business days written notice to the Manager or at Manager's discretion upon thirty (30) calendar days written notice. Manager shall cooperate with KRS and follow KRS's written directions in connection with the termination of this agreement to effect the orderly transfer of securities; or
  - b) At KRS's discretion, immediately, if a result of the Manager's default or breach of contract.

Following termination notification, Manager shall not take any action with respect to the Account, unless specifically authorized to do so by KRS. In the event of termination of the Agreement, the

exclusive, sole and complete remedy of the Manager shall be payment for services rendered prior to termination.

- Account assets in its sole discretion, with or without prior notice. Any such notice shall set forth the amount of any such withdrawal or identify the investment assets and amount of cash to be withdrawn, the date as of which such withdrawal shall be effective and such other information that KRS deems necessary or appropriate. On and after the effective date of such withdrawal and decrease and except as may otherwise be set forth in such notice, the Manager shall cease to be responsible for future investment of the assets and/or cash withdrawn.
- 34. <u>Amendments</u>. Except as otherwise provided herein, written modifications, amendments or additions to this Contract shall be effective only when signed by both parties. At the expiration of its term, this Contract may, at the option of the parties hereto, be renewed by negotiation for further periods not to exceed 60 months for each such renewal.
- 25. Conflicts of Laws. Manager hereby certifies Manager is legally entitled to enter into the subject contract with the Commonwealth of Kentucky and certifies that Manager is not and will not be violating any conflict of interest statute (KRS 121.056 or any other applicable statute) or principle by the performance of this Contract. The Manager shall not engage directly or indirectly in any financial or other transaction with a trustee or employee of Systems which would violate standards of the Executive Branch Ethics provisions, as set forth in KRS Chapter 11A.
- 36. Purchasing by the Commonwealth of Kentucky. The Manager hereby certifies that it will not attempt in any manner to influence any specifications to be restrictive in any way or respect nor will he attempt in any way to influence any purchasing of services, commodities or equipment by the Commonwealth of Kentucky.
- 37. <u>Severability</u>. In case one or more of the provisions contained in this Agreement shall be found to be invalid, illegal or unenforceable in any respect, the validity, legality and enforceability of the remaining provisions contained herein shall not in any way be affected or impaired thereby.
- 38. <u>Miscellaneous</u>. Both parties reserve the right to refuse to renew this Agreement in their sole discretion and for any reason. All section headings in this Agreement are for convenience of reference only, do not form part of this Agreement, and will not affect in any way the meaning or interpretation of this Agreement.

No term or provision of this Agreement may be waived except in writing signed by the party against whom such waiver is sought to be enforced. A party's failure to insist at any time on strict compliance with this Agreement or with any of the terms of the Agreement or any continued course of such conduct on its part will not constitute or be considered a waiver by such party of any of its rights or privileges. Manager is an independent contractor, and nothing in this Agreement may be interpreted or construed to create any employment, partnership, joint venture or other relationship between Manager and KRS. This Agreement contains the entire understanding between KRS and Manager concerning the subject matter of this Agreement, and supersedes all prior agreements, arrangements and understandings, written or oral, between the parties.

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

By: Many No.
Title: VPCA

# ATTACHMENT I

**Investment Policy and Procedures** 



# Kentucky Refirement Systems

Statement of Investment Policy
Approved May 2011

This statement of investment policy is issued by the Board of Trustees of the Kentucky Retirement Systems (Systems) in connection with investing the pension and insurance funds of the Kentucky Employees Retirement System, the County Employees Retirement System and the State Police Retirement System. This document supersedes all prior documents entitled Statement of Investment Policy.

#### T. The Board of Trustees

The Kentucky Retirement Systems is a "Qualified Pension Plan" under Section 401 of the Internal Revenue Code and is administered by a board of nine trustees.

KRS 61.701 establishes the "Kentucky Retirement Systems Insurance Fund" as a separate fund to provide fringe benefits to recipients of the Kentucky Employees Retirement System, County Employees Retirement System and State Police Retirement System. KRS 61.702 provides that all amounts necessary to provide for insurance benefits shall be paid to the insurance fund. The Board shall administer the fund in the same manner as the retirement funds.

Three trustees are appointed by the Governor of the Commonwealth of Kentucky (two of which must be filled by persons with specific experience as required in Section 61.645.1.e.2), two trustees are elected by the membership of the Kentucky Employees Retirement System, two trustees are elected by the membership of the County Employees Retirement System, and one trustee is elected by the membership of the State Police Retirement System. The Secretary of the Personnel Cabinet is an exofficio trustee.

The Board of Trustees authorizes and directs the appointment of an Investment Committee with full power to act for the board in the acquisition, sale and management of the securities and funds of the Systems in accordance with the provisions of the Statutes and Investment Policy of the Board. The Board shall review the actions of the Investment Committee at each quarterly Board meeting.

## II. The Investment Committee

The Investment Committee consists of five members of the Board of Trustees. Three members of the committee are appointed by the chairperson of the Board of Trustees. In accordance with statute, two position are filled by the Trustees that were appointed to the board as persons with specific experience (Section 61.645.1.e.2). The committee acts on behalf of the board on investment related matters.

The Investment Committee has the following oversight responsibilities:

- A. Assure compliance with this policy and all applicable laws and regulations.
- B. Approve the selection and termination of service providers.
  - C. Meet quarterly to evaluate whether this policy, the investment activities and

management controls and processes continue to be consistent with meeting the Systems' goals. Mandate actions necessary to maintain the overall effectiveness of the program.

D. Review assessment of investment program management processes and procedures, and this policy relative to meeting stated goals.

# III. Staff Responsibilities

The Chief Investment Officer is responsible for administration of investment assets of the Systems consistent with the policies, guidelines and limits established by the law, this Statement of Investment Policy and the Investment Committee.

The Chief Investment Officer receives direction from and reports to the Investment Committee and the Executive Director of the Systems on all investment matters, including but not limited to the following:

- A. Maintaining the diversification and risk exposure of the funds consistent with policies and guidelines.
- B. Monitoring and assessing service providers, including annual onsite visits, to assure that they meet expectations and conform to policies and guidelines.
- C. Assess and report on the performance and risk exposure of the overall investment program relative to goals, objectives, policies and guidelines.
- D. Recommend changes to service providers, statutes, policies or guidelines as needed to maintain a productive relationship between the investment program and its goals; act as liaison on all investment related matters.
- E. Communicating with the mass media and other agencies, entities or institutions regarding investment related issues.
- F. Identify issues for consideration by the Investment Committee and prepare recommendations regarding such matters.

The Chief Investment Officer or designee is authorized to execute trades on fixed income and equity securities (including ETF's) and to execute proxies for the Board consistent with this Policy.

To carry out this Policy and investment related decisions of the Board, the Chief Investment Officer or designee is authorized to execute agreements and other necessary or proper documents pertaining to investment managers, consultants, investment related transactions or other investment functions.

## IV. Service Providers

#### A. Investment Managers

In instances where the Investment Committee has determined it is desirable to employ the services of an external Investment Manager, the following shall be applicable:

1. Investment Managers shall be qualified and agree to serve as a fiduciary to the Systems and shall generally have been in the business of investment management for

large United States institutional investors for at least three to five years.

Investment Managers shall manage assets in accordance with this Policy and any additional guidelines established by contract, as may be modified in writing from time to time.

# B. Custody Bank

The Board shall hire custodians and other agents who will be fiduciaries to the Systems and who will assume responsibility for the safekeeping and accounting of all assets held on behalf of the Systems and other duties as agreed to by contract.

#### C. Investment Consultants

Qualified independent investment consultants may be retained by the Systems for asset allocation studies, asset allocation recommendations, performance reviews, manager searches and other investment related consulting functions and duties as set forth by contract.

#### D. Selection

Qualified investment managers, custody banks, investment consultants and other service providers shall be selected by the Investment Committee or Chief Investment Officer as required. The selection shall be based upon the demonstrated ability of the professional(s) to provide the required expertise or assistance. In order to create an efficient and effective process, the Investment Committee or Chief Investment Officer may, in their sole discretion, utilize RFI, RFP, third party proprietary software or database, review of existing service provider capabilities or any combination of these or other methods to select a service provider. Relevant criteria for the selection of investment managers are contained in the Transactions Procedures statement.

All contact and communication with service providers seeking a business relationship with the Systems shall be directed to the Division Director for that specific asset class. However, this rule is not applicable to existing service providers if the contact or communication is in response to an information request from the Investment Committee or if it is incidental contact not related to specific Systems business.

#### V. Investment Philosophy

The Trustees of the Kentucky Retirement Systems recognize their fiduciary duty not only to invest the Systems' funds in formal compliance with the Prudent Person Rule but also to manage those funds in continued recognition of the basic long term nature of those systems. The Trustees interpret this to mean, in addition to the specific guidelines and restrictions set forth in this document, that the assets of the three systems shall be proactively managed -- that is, investment decisions regarding the particular asset classes, strategies, and securities to be purchased or sold shall be the result of the conscious exercise of discretion.

The Trustees recognize that, commensurate with their overall objective of maximizing long-range return while maintaining a high standard of portfolio quality and consistency of return, it is necessary that proper diversification of assets be maintained both across and within the classes of securities held to minimize/mitigate overall portfolio risk. Consistent with carrying out their Fiduciary

Responsibilities and the concept of Modern Portfolio Theory, the Trustees will not systematically exclude any investments in companies, industries, countries, or geographic areas unless required to do so by statute. Within this context of proactive management and the necessity for adherence to proper diversification, the Trustees rely upon appropriate professional advice from multiple service providers.

The Trustees and other fiduciaries shall discharge their duties with respect to the Systems: (1) solely in the interest of the participants and beneficiaries; (2) for the exclusive purpose of providing benefits to participants and beneficiaries; (3) with the care, skill and caution under the circumstances then prevailing which a prudent person acting in a like capacity and familiar with those matters would use in the conduct of an activity of like character and purpose; (4) impartially; (5) incurring and paying appropriate and reasonable expenses of administration and (6) in accordance with a good faith interpretation of the laws, regulations and other instruments governing the Systems.

Additionally, the Trustees and other fiduciaries shall not engage in any transaction which results in a substantial diversion of the Systems income or assets without adequate security and reasonable rate of return to a disqualified person or in any other prohibited transaction described in Internal Revenue Code Section 503(b).

## VI. Investment Objectives

The Board of Trustees realizes that prudent investment management is a duty. In fulfillment of this duty, the Board of Trustees recognizes that while long-term objectives are important, it is also necessary that short-term benchmarks be used to assess the periodic performance of the investment program.

Accordingly, the Board of Trustees has established the following investment objectives:

- · Long-Term:
  - The total assets of the Systems should achieve a return which exceeds the actuarially required rate of return of 7.75%.
  - In addition to exceeding the actuarially required rate of return, the total fund return should exceed the return achieved by its blended performance benchmark.
- Short-Term:
  - The returns of the particular asset classes of the System, measured on a rolling basis, should seek to exceed the returns achieved by comparable passive market indices as described in the appropriate Addendum of this statement.

#### VII. Derivative Securities and Leveraging

## **Derivative Securities**

Investment managers may invest in derivative securities, or strategies which make use of derivative investments, for exposure, cost efficiency and risk management purposes, if such investments do not cause the portfolio to be leveraged beyond a 100% invested position. Examples of such derivatives include, but are not limited to, foreign currency forward contracts, collateralized mortgage obligations (CMOs), futures, options, and swaps.

Investments in securities such as collateralized mortgage obligation (CMO), planned amortization class (PAC) issues, interest only (IO), principal only (PO), inverse floater, or structured note securities are prohibited unless specifically allowed in a managers contract. They will then only be allowed if, in the judgment of the investment manager, they are not expected to be subject to large or unanticipated changes in duration or cash flows. IO, PO, inverse floaters, and structured note securities are not allowed for use in cash or core fixed income portfolios. Investment managers may make use of derivative securities for defensive or hedging purposes.

Any derivative security shall be sufficiently liquid that it can be expected to be sold at, or near, its most recently quoted market price.

## Leveraging

Leveraging for purposes of enhancing yield or total return is expressly prohibited except for investments in alternative and absolute or real return investments. Investment managers in these strategies/investments are granted the authority to engage in positive leverage to the extent authorized in their offering memorandum or written agreement.

The above is not intended to limit the Systems from borrowing to cover short-term cash flow needs nor prohibit the Systems from loaning securities in accordance with a securities lending agreement.

#### VIII. Asset Allocation Guidelines

In establishing asset allocation guidelines the Board recognizes that each system has its own capacity to tolerate investment volatility, or risk. Therefore, each system has been studied and asset allocation guidelines have been established on a system by system basis. The Board will cause the asset allocation guidelines of each system to be reviewed annually. The Board will also undertake an asset liability study every three to five years as determined by program needs.

The intent of the Board of Trustees in allocating funds to the investment managers is for the investment managers to fully invest the funds. However, the Board of Trustees is aware that from time to time the investment manager will require a portion of the allocated funds to be held in cash provided the cash holdings do not exceed three percent (3%) of the manager's allocation for any given quarter, unless such cash holdings are an integral part of a fixed income manager's investment strategy.

The individual plan level asset allocations of the each Pension and Insurance Fund constituent will be reviewed monthly by staff relative to its target asset class allocation. Staff shall reallocate the assets when the actual asset class allocation is within one percentage point of the allowable range boundary, but may also opportunistically reallocate when the actual asset class allocation exceeds the target asset class allocation by a margin of +/- 1 percentage points. See Appendix A and B for current asset allocation targets.

In keeping with its responsibility as trustee and wherever consistent with its fiduciary responsibility, the board encourages the investment of the fund's assets in investments, funds, and securities of corporations which provide a positive contribution to the economy of the Commonwealth of Kentucky. However, where any security is not a prohibited investment under the governing laws and policies.

discretion will be granted to the appointed investment managers in the selection of such securities and timing of transactions consistent with the following guidelines and restrictions.

## A. Domestic Equity Investments

Investment may be made in common stock, securities convertible into common stock, preferred stock of publicly traded companies on stock markets, asset class relevant ETF's or any other type of security contained in a manager's benchmark. Each individual domestic equity account shall have a comprehensive set of investment guidelines prepared, which contains a listing of permissible investments, portfolio restrictions and standards of performance for the account.

The internally managed equity index funds are intended, consistent with the governing plan documents, to gain exposure to a broad asset sector to replicate the characteristics of the asset class, to minimize administrative expenses and to help achieve overall portfolio objectives. These objectives can be achieved through several management techniques, including but not limited to, portfolio optimization, non-reinvestment of index dividends and other management techniques intended to help achieve the objectives of the entire pension fund.

## B. International Equity Investments

Investments may be made in common stock, securities convertible into common stock, preferred stock of publicly traded companies on stock markets, asset class relevant ETF's or any other type of security contained in a manager's benchmark. Each individual international equity account shall have a comprehensive set of investment guidelines prepared, which contains a listing of permissible investments, portfolio restrictions and standards of performance for the account.

The internally managed equity index funds are intended, consistent with the governing plan documents, to gain exposure to a broad asset sector to replicate the characteristics of the asset class, to minimize administrative expenses and to help achieve overall portfolio objectives. These objectives can be achieved through several management techniques, including but not limited to, portfolio optimization, non-reinvestment of index dividends and other management techniques intended to help achieve the objectives of the entire pension fund.

## C. Fixed Income Investments

Fixed Income investments will be similar in type to those securities found in the KRS fixed income benchmarks and the characteristics of the KRS fixed income portfolio will be similar to the KRS fixed income benchmarks. The fixed income accounts may include, but are not limited to the following fixed income securities: U.S. Government and Agency bonds, investment grade U.S. corporate credit, investment grade non-U.S. corporate credit, including both bonds and bank loans, non-investment grade non U.S. corporate credit including bonds and bank loans, municipal bonds, non-U.S. sovereign debt, mortgages including residential mortgage backed securities, commercial mortgage backed securities, and whole loans, asset-backed securities, and emerging market debt including both sovereign EMD and corporate EMD and asset class relevant ETF's.

Each individual fixed income account shall have a comprehensive set of investment guidelines prepared, which contains a listing of permissible investments, portfolio restrictions, risk parameters, and standards of performance for the account.

#### D. Alternative Investments

Subject to specific approval of the Investment Committee of the Board of Trustees, investments may be made for the purpose of creating a diversified portfolio of alternative investments. Examples of such investments include, but are not limited to, venture capital partnerships, private equity, leveraged buyouts and funds, private debt, timberland, oil and gas partnerships, commodities and private placements. While it is expected that the majority of these assets will be invested within the United States, a portion has been allocated to non-US investments. These non-U.S. investments are not restricted by geography.

It is expected that these investments will typically be structured as Limited Partnerships, with KRS serving as one of the Limited Partners, but not as a General Partner. It is also expected that KRS will not engage in direct investments or co-investments, in which the System would purchase majority control in individual corporate entities.

Alternative investments are unique, illiquid and long term in nature; as such, public indices do not serve as a true benchmark. Given this, circumstance leads to the possibility of large short term performance discrepancies, KRS more appropriately measures its alternative investments based on a preponderance of indices. In order to address differences between the long-term performance and biases introduced by life cycle stage dependent return profiles inherent to many alternative investments, on an annual basis, the Total Alternative Investment allocation and its underlying investments will be compared to other investments with similar strategies and of the same vintage year as reported by Venture Economics.

Over the long term, KRS will use a specified index plus risk premium approach.

<u>Total Alternative Investment Allocation:</u> The Total Alternative Investment Allocation shall have a performance benchmark that consists of the KRS Alternative Investment Index. Alternative Investment sub-asset class segments shall be assigned a performance benchmark and comply with relevant Standards.

#### Venture Capital

Description: Venture capital investments are seed stage, early stage, later stage, and expansion stage investments. Investments are often made in years one through five and distributions typically occur in years four through ten, or longer.

Investment Constraints: Over the life of the fund, no more than 35% of total net assets of an individual partnership may be invested in securities or obligations of foreign entities issued outside the U.S. No more than 50% of total net assets of an individual partnership may be invested in a single segment within a particular industry.

#### Buyouts

Description: Buyout investments typically involve the purchase of a control position (primarily majority positions, with some minority positions) in an established company. Leverage may be used. Investments are often made in years one through four and distributions typically occur in years three through six.

Investment Constraints: Over the life of the fund, no more than 35% of total net assets of an individual partnership may be invested in securities or obligations of foreign entities issued outside the U.S. No more than 50% of total net assets of an individual partnership may be invested in a single segment within a particular industry.

## Debt-Related

Description: Debt-related investments combine a debt instrument, which provides a current yield, with an equity participation in warrants, etc. Investments are typically made in years one through three and provide current income combined with capital appreciation supplied by the warrants or other "equity kickers".

Investment Constraints: Over the life of the fund, no more than 35% of total net assets of an individual partnership may be invested in securities or obligations of foreign entities issued outside the U.S. Investments may be made in equity or debt related real estate assets. The General Partner may not purchase securities on margin or otherwise borrow funds for the purposes of purchasing securities.

#### International

Specific International guidelines will follow the sections covering buyout, venture capital, and debt related investments. However, international investments are exempt from the investments constraints prohibiting investments outside of the U.S. as these investments are expected to hold majority of their assets outside of the U.S.

To ensure prudent diversification and due to unique characteristics of international private equity markets, it is expected that the international exposure will be provided by fund-of-fund vehicles, and targeted direct partnership vehicles.

The following sub-asset target allocations are based on market value:

Sub-Category	Target Allocations	Ranges
Venture Capital	20.0%	10-30%
Buyouts	60.0%	40-70%
Debt-Related	20.0%	10-30%

#### E. Real Estate Investments

Subject to specific approval of the Investment Committee of the Board of Trustees, Investments may be made in equity and debt real estate for the purpose of achieving the highest total rate of return possible consistent with a prudent level of risk. Allowable real estate investments include open-end and closed-end commingled real estate funds, joint venture investments,

public and private REITs (real estate investment trusts), public real estate operating companies, and real estate related debt.

KRS has determined that the primary role of the real estate asset class is to provide for the following:

 Attractive risk adjusted returns through active management and ability to access managers with the expertise and capabilities to exploit market inefficiencies in the asset class.

The illiquid nature of real estate investments combined with the complexity of investments makes it difficult for casual investors to effectively access the asset class effectively.

It is the belief that through active management and by investing in top tier managers with interests aligned through co-investment and incentive based compensation, KRS can maximize its risk adjusted returns.

This active management approach will be pursued.

- Diversification benefits through low correlations with other asset classes, primarily the U.S. equity markets.
- Provide a hedge against unanticipated inflation, which real estate has historically
  provided due to lease structures and the increases in material and labor costs during
  inflationary periods.
- Permit KRS to invest in unique opportunities that arise due to dislocations in markets that occur from time to time.

## Allocation to Real Estate Asset Class

KRS will endeavor to achieve the target allocation over a three to five year period by averaging into the market and avoiding any concentrated vintage year risks.

For purposes of this investment Policy, the real estate investment universe is divided into the following sectors, with descriptive attributes to follow:

## A. Core Properties

- Operating, substantially leased office, retail, industrial or apartment properties.
   Several alternative property types may be included in Core such as self-storage, medical office, ground leases, senior housing and triple net leased properties to the extent they exhibit similar risk and return attributes to the traditional Core property types.
- Generally have institutional qualities for size, physical attributes and location.

- Target total returns of 7%-9% per year (net of fees and promoted interest), with a high
  proportion of the total return to be generated from current income and a small
  proportion of the total return generated from appreciation.
- Leverage for core properties is moderate with an upper limit of 50% loan to value.

## B. Value Added Properties

- Office, retail, industrial or apartment properties that have moderate risk associated
  with their investment. Several alternative property types may be included in ValueAdded such as self-storage, medical office, senior housing and triple net leased
  properties to the extent they exhibit similar risk and return attributes for Value-Added
  investments.
- Value-Added investments are targeted to capitalize on defects with specific properties that can be identifiable and correctable through leasing, re-development, management and/or recapitalization.
- Target returns for value added investments are 9% to 12% per year (net of fees and promoted interest).
- Leverage for value added investments is generally limited to approximately 65% loan to value.

## C. Opportunistic Investments

- Opportunistic investments can be comprised of any property sector. Opportunistic
  investments can include office, retail, industrial and apartments with high-risk
  attributes. In addition, hotels, operating companies, development, land and distressed
  properties are all examples of opportunistic investments
- Leverage for opportunistic investments can be 75% loan to value or higher in certain cases.
- Opportunistic investments will generate returns in excess of 12% (net of fees and promoted interest) in order to compensate for the additional risk commensurate with the increased risk compared to core property investments.

#### D. Public Securities

- Real estate public securities ("Public Securities") do not allow control over the assets or management.
- Public Securities generally have higher risk and return characteristics than Core
  properties due to higher leverage and operating company risks. In addition, the daily
  pricing of securities result in additional reported volatility of returns.

- Daily pricing and public market trading provide liquidity. However, due to small float and limited market capitalization of Public Securities, improved liquidity may come at a price.
- The emergence of the international Public Securities market has broadened the universe to include Asia, European, Australian and North American property companies.
- Expected returns are approximately 9%-11% (net of fees) over a 10-year period and 11-13% (net of fees) for non-U.S. Public Securities.

KRS will seek to limit investments using the following diversification limits:

	Target	Range
Core:	70%	50% to 90%
Value Added:	20%	10% to 30%
Opportunistic:	10%	0% to 20%
Public Securities:	. 0%	0% to 20%

KRS seeks to maintain the flexibility to overweight or underweight any sector in order to capitalize on market opportunities.

#### **Investment Vehicles**

Due to the size of KRS's portfolio, the preferred investment structure is commingled funds. Exceptions may be for public equity accounts which may be efficiently invested through a separate account or single property investments. Single property investments shall be limited to no more than 5% of the total real estate allocation.

KRS may also consider co-investment opportunities in cases where discounted fees and appropriate diversification can be achieved for a particular investment opportunity.

## Diversification

KRS will seek to control risk in its real estate investment program by diversifying its investments by investment manager, property type and location diversification.

#### E. Investment Manager

KRS will limit the amount committed to one investment manager to no more than twenty percent (20%) of the total allocation for real estate investments.

## F. Property Type Diversification

KRS will seek to limit investments by property type diversification using the following limits:

Office:

0% to 40% of the total allocation

Retail:

0% to 40% of the total allocation

Apartment:

0% to 40% of the total allocation

Industrial:

0% to 40% of the total allocation

Other:

0% to 40% of the total allocation

(other includes hotels, self-storage, parking, etc.)

## Total Leverage

KRS recognizes that leverage is an inherent component of real estate investments and use of leverage can be an effective means to increase overall returns from time to time on a risk-adjusted basis. There will be a limit of 75% of the total portfolio placed on the use of leverage.

All portfolio leverage will be secured through the individual fund investments. There will be no recourse debt permitted.

#### Investment Size

The maximum investment size for any single investment shall be limited to fifteen percent (15%) of the total real estate allocation, or \$100 million, whichever is greater.

#### E. Real Return Investments

Real return investment strategies target a return that exceeds inflation by some premium (e.g. CPI + 3%) based on the risk inherent in the overall program. Real return managers typically invest in a core of "real" return assets, such as TIPS (and Linkers), commodities, infrastructure, timber, oil, energy, MLP's and core real estate, as well as traditional asset classes such as equity and fixed income. Additionally, real return managers attempt to add value by tactically allocating to asset classes they perceive to be undervalued, thus contributing to the "real" return orientation.

To avoid concentration risk, real return investments must be diversified by asset class, and maintain a core portfolio position in real assets, or assets that generally exhibit a positive correlation with inflation over time. Leverage shall not be employed within real return portfolios.

## F. Cash Equivalent Securities

Selection of particular short-term instruments, whether viewed as liquidity reserves or as investment vehicles, should be determined primarily by the safety and liquidity of the investment and only secondarily by the available yield. The following short-term investment vehicles are considered acceptable:

Publicly traded investment grade corporate bonds, variable rate demand notes, government and agency bonds, mortgages, and collective STIFs, money market funds or instruments (including, but not limited to, certificates of deposit, bank notes, deposit notes, bankers' acceptances and commercial paper) and repurchase agreements relating to the above instruments. Instruments may be selected from among those having an investment grade rating at the time of purchase by at least one recognized bond rating service. In cases where the instrument has a split rating, the lower of the two ratings shall prevail. All instruments shall have a maturity at the time of purchase that does not exceed two years. Repurchase agreements shall be deemed to have a maturity equal to the period remaining until the date on which the repurchase of the underlying securities is scheduled to occur. Variable rate securities shall be deemed to have a maturity equal to the time left until the next interest rate reset occurs, but in no case will any security have a stated final maturity of more than three years.

The Systems' fixed income managers that utilize cash equivalent securities as an integral part of their investment strategy are exempt from the permissible investments contained in the preceding paragraph. Permissible short-term investments for fixed income managers shall be included in the investment manager's investment guidelines.

#### Absolute Return Program

Subject to specific approval of the Investment Committee of the Board of Trustees, investments may be made for the purpose of creating a diversified portfolio of absolute return investments. Examples of such investments include, but are not limited to, fund of hedge funds, multi-strategy hedge funds, and single strategy hedge funds. The objective of the absolute return strategy is to preserve capital and deliver positive (absolute) returns under most market conditions. It is anticipated that the returns from this program should largely be uncorrelated to market movements in both the equity and fixed income markets (systematic risk) and primarily be based on manager skill; therefore, helping to diversify the overall KRS portfolio. It is intended that this program be structured so that risk should be specific to each manager, not to the systematic risk of the markets. By emphasizing absolute, rather than relative returns, and utilizing a wider range of investment techniques, such as leverage, short selling and derivatives to achieve their objectives, hedge funds are expected to deliver an absolute return with a risk level between that of stocks and bonds. As such, the objective of the Absolute Return Program is designed to help reduce the volatility of the overall KRS portfolio while seeking to enhance returns in a variety of market environments.

KRS does not consider Absolute Return Strategies to be a separate asset class, but rather a set of investment strategies utilizing public and private securities and instruments.

The list of absolute return strategies that the KRS absolute return portfolio may utilize via direct hedge funds or fund of hedge funds include, but are not limited to:

- Convertible Arbitrage: Investment strategy that is long convertible securities and short the underlying equities
- Distressed Securities: Invests long (and some short) securities of companies that are in reorganizations, bankruptcies, or some other corporate restructuring
- Emerging Markets: Investment in securities of companies in developing or "emerging" countries primarily long
- Growth Funds: Investment in a portfolio or "core" holdings in growth stocks. Many of these portfolios are hedged by shorting and utilizing options
- Macro Funds: The investment philosophy is based on shifts in global economies. Derivatives are often used to speculate on currency and interest rate moves
- Market Neutral: Strategy that attempts to lockout or "neutralize" market risk
- Market Timing: Allocation of assets among investments primarily switching between mutual funds and money markets
- Merger Arbitrage: Invests in event-driven situations of corporations, such as leveraged buy-outs, mergers, and hostile takeovers. Managers purchase stock in the firm being taken over and, in some situations, sell short the stock of the acquiring company
- Multistrategies: Specific portions are utilized for separate strategies, e.g., growth, convertible arbitrage, and market neutral
- Opportunistic: Investment theme is dominated by events that are seen as special situations or opportunities to capitalize from price fluctuations or imbalances
- Sector Funds: Invest in companies in sectors of the economy, e.g., financial institutions or biotechnologies. These funds invest in both long and short securities and will utilize options
- Short Selling: Short selling of securities
- Derivative Funds: These funds invest in derivative instruments such as futures and options with the aim of achieving high returns
- Commodity Funds: These funds invest in shares of companies that operate in commodity related industries or hold physical commodities such as bullion
- CTA: A fund that is a Commodity Trading Advisor's account where the trades are generally focused in commodity futures, options, and foreign exchange with a high degree of leverage
- Short Bias: A fund that consistently maintains a net short position to the overall market

#### IX. Standards of Measurement

## Performance Measurement

The Kentucky Retirement Systems ("KRS") overall fund performance is measured relative to the KRS Pension or Insurance Total Fund Benchmark. The benchmark is calculated by means of a weighted average methodology. This method is consistent with industry-wide standards and the practices utilized by the CFA Institute. It is the product of the various component weights (i.e., asset classes' percentages) by their respective performance (returns). Due to market fluctuations and acceptable divergence, the asset classes' weights (percentages) are often not equivalent to the benchmark's weights. Therefore, the performance may indicate that the Funds have outperformed (underperformed) relative to their respective benchmarks, even when the preponderance of lesser weighted categories have underperformed (outperformed) their indices.

KRS measures its asset classes, sub-asset classes, sectors, strategies, portfolios, and instruments (investment) performance with indexes that are recognized and published (e.g., S&P 500 & Barclays Aggregate Bond Index). These indices are determined to be appropriate measures of investments and composites of investments with identical or similar investments profiles, characteristics, and strategies. The benchmarks and indexes are intended to be objective, investable, replicable, representative and measurable of the investment mandate and, developed from publicly available information that is acceptable to KRS and the investment manager/advisor as the neutral position consistent with the underlying investor status. KRS' investment consultant and staff recommend the benchmarks and indexes. These measures shall be subject to the annual review and approval of the KRS Investment Committee and ratification of the Kentucky Retirement Systems' Board of Trustees.

The KRS Total Fund Benchmarks and sub-components, indexes, are described in Appendix A and B of this document.

The following descriptions represent general standards of measurement that will be used as guidelines for the various classes of investments and managers of the Kentucky Retirement Systems. They are to be computed and expressed on a time-weighted total return basis:

## Total Public Asset Class Allocations

#### Short-term

- For periods less than five years or a full market cycle, the Asset Class Allocation should exceed the returns of the appropriate Index.

Intermediate & Long-term

For periods greater than five years or one market cycle, the Asset Class Allocation should exceed the appropriate Index, compare favorably on a risk-adjusted basis, and generate returns that rank above the median return of a relevant peer group. Volatility, as measured by the standard deviation of monthly returns, should be comparable to the Index.

<u>Individual Public Security Portfolios</u>: Individual portfolios shall be assigned a market goal or benchmark that is representative of the style or market capitalization of the assignment. Individual accounts should be monitored using the following Standards:

## Short-term

- For periods less than five years or a full market cycle, individual portfolios should exceed the returns of their market goal or benchmark.

Intermediate & Long-term

For periods greater than five years or one market cycle, individual portfolios should exceed the return of their market goal or benchmark, compare favorably on a risk-adjusted basis, and generate returns that rank above the median return of a relevant peer group. Volatility, as measured by the standard deviation of monthly returns, should be comparable to the benchmark.

#### Alternative Assets:

In addition to exceeding the appropriate benchmark listed in Appendix A and B, the Alternative portfolio should also seek to achieve the following:

#### Short-term

 Alternative investments should earn a Net IRR that place the investment above the median Net IRR of other similar funds, of the same vintage year, as reported by Venture Economics.

#### Intermediate & Long-term

 Alternative investments should earn a Net IRR that exceeds the KRS Private Equity Index (annualized) and that place the investment above the median Net IRR of other similar funds, of the same vintage year, as reported by Venture Economics.

#### Real Estate

The Total Real Estate allocation of the fund shall be benchmarked to the appropriate benchmark.

In addition, target returns for value added investments should be 9% to 12% per year (net of fees and promoted interest). Target returns for <u>Opportunistic</u> investments should be in excess of 12% (net of fees and promoted interest) in order to compensate for the additional risk commensurate with the increased risk compared to core property investments.

#### Real Return

The total Real Return allocation shall seek to:

- (1) Achieve a rate of return that exceeds the appropriate benchmark annually over a complete market cycle (3-5 years), net of all investment management fees.
- (2) Achieve a rate of return that exceeds the appropriate real return composite index over a complete market cycle (3-5 years), net of all investment management fees.
- (3) Achieve a positive risk/reward trade-off when compared to similar style real return Investment Managers.

#### Absolute Returns

The total Absolute Return allocation shall seek to:

- (1) Achieve a rate of return that exceeds the appropriate benchmark annually over a complete market cycle (3-5 years), net of all investment management fees.
- (2) Achieve a positive risk/reward trade-off when compared to similar style FOF return Investment Managers.

## X. Investments Performance Review Procedures

On a timely basis, but not less than quarterly, the Investment Committee, on behalf of the Board of Trustees, will review the performance of the portfolio for determination of compliance with this Statement of Investment Policy. On an annual basis, a comprehensive review of each asset class and underlying portfolios shall be conducted by the staff and presented to the Investment Committee. The review shall consist of an organizational, performance and compliance assessment.

The Compliance Officer shall perform tests each month to assure compliance with the restrictions imposed by this policy. These tests shall be performed at the asset class and total fund level. Quarterly, the Compliance Officer shall prepare a report to the Investment Committee detailing the restrictions tested, exceptions, the cause of the exception and the subsequent resolution. The Investment Committee shall report the findings to the Board of Trustees at the next regularly scheduled meeting.

The following restrictions shall be tested monthly:

- The amount of stock in the domestic or international equity allocation in any single corporation shall not exceed 5% of the aggregate market value of the Systems' assets.
- ► The amount of stock held in the domestic or international equity allocation shall not exceed 3% of the outstanding shares of any single corporation.
- ➤ The amount of stock in any one industry in the domestic equity allocation shall not exceed 10% of the aggregate market value of the Systems' assets.
- ▶ Investment in "frontier" markets (those countries not included in the MSCI EM Index) shall not exceed 5% of the System's international equity assets.
- ➤ The duration of the total fixed income portfolio shall not deviate from the KRS Fixed Income Index by more than 25%.
- ▶ The duration of the TIPS portfolio shall not deviate from the KRS TIPS by more than 10%.
- ➤ The amount invested in the debt of a single corporation shall not exceed 5% of the total market value of the Systems' assets.
- ▶ No public fixed income manager shall invest more than 5% of the market value of assets held in any single issue short term instrument, with the exception of U.S. Government issued, guaranteed or agency obligations.
- ► The amount invested in SEC Rule 144a securities shall not exceed 15% of the market value of the aggregate market value of the Systems' fixed income investments.

The Chief Investment Officer shall develop a comprehensive set of investment guidelines for each externally managed account. These guidelines should ensure, at the total fund and asset class level, that the restrictions set forth above are preserved. The Compliance Officer shall perform tests each month to assure compliance with the guidelines. Quarterly, the Compliance Officer shall prepare a report to the Investment Committee detailing the restrictions tested, exceptions, the cause of the

exception and the subsequent resolution. The Investment Committee shall report the findings to the Board of Trustees at the next regularly scheduled meeting

## XI. Additional Items

A. Proxy Voting Policy dated May 2011

The Board of Trustees reserves the right to direct the Chief Investment Officer, or designee, to vote proxies in accordance with the Investment Committee Proxy Voting Policy, which is hereby incorporated by reference.

B. Brokerage Policy dated May 2011

The Investment Committee brokerage policy is hereby incorporated by reference.

C. Transactions Procedures Policy dated May 2011

The Investment Committee transaction procedures are hereby incorporated by reference.

D. Securities Litigation Policy and Procedures dated May 2011

The Investment Committee securities litigation policy and procedures are hereby incorporated by reference.

E. Securities Lending Guidelines dated May 2011

The Investment Committee securities lending policy and procedures are hereby incorporated by reference.

- F. Securities Trading Policy for Trustees and Employees dated May 2011
- G. Placement Agent Statement of Disclosure dated May 2011

Signatories

As Adopted	by	the	Investment	Committee
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Date: May 3 2011

Signature

Tommy Elliott

Chair, Investment Committee

As Adopted by the Board of Trustees

Date: May 19, 201

Signature:

Jennifer Elliott

Chair, Board of Trustees



## Kentucky Retirement Systems

Appendix A: Addendum to the Statement of Investment Policy Pension Fund - Asset Allocation / Benchmark Composite Effective July 1, 2011

This addendum to the investment policy is issued by the Board of Trustees of Kentucky Retirement Systems (Systems) in connection with investing the pension funds of the Kentucky Employees Retirement System, the County Employees Retirement System and the State Police Retirement System. This document supersedes all prior documents entitled Addendum to the Statement of Investment Policy.

## I. Asset Allocation with Benchmarks

			•	Target		l	Allowable
Asset Class	Benchmark.	KERS	KERS Hazardous	CERS	CERS Hazardous	SPRS	Range (+/- Target)
US Equity	Russell 3000	20.0%	20.0%	20.0%	20.0%	20.0%	5,0%
Non US Equity	MSCI ACWI Ex-US Standard	20.0%	20.0%	20.0%	20,0%	20.0%	5.0%
Emerging Market	MSCI Emerging Markets	4.0%	4.0%	4.0%	4.0%	4.0%	2.0%
Core Fixed Income	Barclays US Aggregate	10.0%	10.0%	10.0%	10.0%	10.0%	3.0%
High Yield Bonds	Barclays US High Yield	5.0%	5.0%	5.0%	5.0%	5.0%	2.0%
Global Bonds	Barclays Global Agg	5.0%	5.0%	5.0%	5.0%	5.0%	2.0%
Real Estate	NCREIF ODCE	5.0%	5.0%	5.0%	5.0%	5.0%	3.0%
Absolute Return	HFRI Diversified FOF	10.0%	10.0%	10.0%	10.0%	12.0%	3.0%
Real Return	CPI+300 bps	10.0%	10.0%	10.0%	10,0%	10.0%	3.0%
Private Equity	Russell 3000 + 300 bps	10.0%	10.0%	10.0%	10.0%	7.0%	5.0%
Cash	Cit Orp 3-mos Treasury Bill	1.0%	1.0%	1.0%	1.0%	2.0%	

# II. Total Fund Blended Benchmark Composite

The state of the s	Pension Fund Composites	
US Equity	Russell 3000	20.0%
Non US Equity	MSCI ACWI Ex-US Standard	20.0%
<b>Emerging Market</b>	MSCI Emerging Markets	4.0%
Fixed Income	Barclays Universal Index	20.0%
Real Estate	NCREIF ODCE	5.0%
Absolute Return	HFRI Diversified FOF	10.0%
Real Return	CPI + 300 bps	10.0%
Private Equity	Russell 3000 (lagged 1 qtr) + 400 bps	9.9%
Cash	Cit Grp 3-mos Treasury Bill	1.0%

Signatories

As Adopted by the Investment Committee

Tommy Ellfott

Chair, Investment Committee

As Adopted by the Board of Trustees

Signature:

Jennifer Elliott

Chair, Board of Trustees



## Kentucky Retirement Systems

Appendix B: Addendum to the Statement of Investment Policy
Insurance Fund - Asset Allocation / Benchmark Composite

Effective July 1, 2011

This addendum to the investment policy is issued by the Board of Trustees of Kentucky Retirement Systems (Systems) in connection with investing the insurance funds of the Kentucky Employees Retirement System, the County Employees Retirement System and the State Police Retirement System. This document supersedes all prior documents entitled Addendum to the Statement of Investment Policy.

## I. Asset Allocation with Benchmarks

2 d.			Target				Allowable
Asset Class	Benchmark	KERS	KERS Hazardous	CERS	CERS Hazardous	SPRS	Range (+/ Target)
US Equity	Russell 3000	28.0%	20.0%	20.0%	20.0%	20.0%	5.0%
Non US Equity	MSCI ACWI Ex-US Standard	27.0%	20.0%	20.0%	20.0%	20.0%	5.0%
Emerging Market	MSCI Emerging Markets		4.0%	4.0%	4.0%	4.0%	2.0%
Core Fixed Income	Barclays US Aggregate	15.0%	10.0%	10.0%	10.0%	10.0%	3.0%
High Yield Bonds	Barclays US High Yield	-	5.0%	5.0%	5,0%	5.0%	2.0%
Global Bonds	Barclays Global Agg	-	5.6%	5.0%	5.0%	5.0%	2.0%
Real Estate	NCREIF ODCE	-	5.0%	5.0%	5.0%	5.0%	3.0%
Absolute Return	HFRI Diversified FOF	10.0%	12.0%	10.0%	10.0%	10.0%	3.0%
Real Return	CPI + 300 bps*	20.0%	7.0%	10.0%	10.0%	10.0%	3.0%
Private Equity	Russell 3000 + 300 bps	-	10.0%	10.0%	10.0%	10.0%	5.0%
Cash	Cit Grp 3-mos Treasury Bill		2.0%	1.0%	1.0%	1.0%	· •

<sup>\*</sup>KERS 20% allocation to Real Return includes a 15% dedicated allocation to US TIPS, thus the benchmark for KERS is CPI +250 bps.

## II. Total Fund Blended Benchmark Composite

	Insurance Fund Composite	
US Equity	Russell 3000	21.1%
Non US Equity	MSCI ACWI Ex-US Standard	21.0%
Emerging Market	MSCI Emerging Markets	3.4%
Fixed Income	Barclays Universal Index	19.3%
Real Estate	NCREIF ODCE	4.3%
Absolute Return	HFRI Diversified FOF	10.2%
Real Return	CPI + 300 bps	11.4%
Private Equity	Russell 3000 (lagged 1 qtr) + 400 bps	8.2%
Cash	Cit Grp 3-mos Treasury Bill	1.0%

Signatories

As Adopted by the Investment Committee

Date: May 3 2011

Tommy Elliott

Chair, Investment Committee

As Adopted by the Board of Trustees

Date: Max 19, 201

Jennifer Ellion

Chair, Board of Trustees

# ATTACHMENT II

Portfolio Guidelines



# KENTUCKY RETIREMENT SYSTEMS



## Investments

## **PURPOSE**

This Investment Strategy Statement (the "Document") is effective as of November 2011. It identifies the goals of the portfolio and the expectations of the investment advisory relationship between Manulife Asset Management (US) LLC (the "Advisor") and the Kentucky Retirement Systems ("KRS"), and establishes the standards, guidelines, and restrictions that will be used to manage, monitor, and evaluate the results of the Advisor. It may be altered at any time during the life of the contract between the Advisor and KRS, provided that both parties mutually agree to such changes in writing. Such alterations (if necessary) will not require the formulation of a new contract between the two parties, nor any formal modification of this Contract; instead, only a new version of this Document would be drafted to formalize such alterations, and the revised Document would be attached to the existing contract and exchanged in writing.

## **INVESTMENT GOALS**

The overall goal of this portfolio is to provide a source of global fixed income exposure similar to that of the Barclays Capital Multiverse Index. The Adviser is directed to make reasonable efforts to preserve the principal of funds provided to them, but preservation of principal shall not be imposed on each individual investment. KRS understands that the goals of preservation of principal, income generation, and capital appreciation will cause fluctuations in the total value of the assets. KRS understands the risk associated with investing in the capital markets and the specific risks of investing in this particular investment style. At the same time, KRS expects the Advisor to exercise due care, consistency, and diligence in making investment decisions. The assets of the portfolio are tax–exempt; therefore, U.S. tax considerations are not a constraint on the portfolio. It is also understood that the Advisor will comply fully with all facets of KRS' Statement of Investment Policy (Attachment IV), including any subsequent amendments to this Policy.

The Advisor will manage the assets of the portfolio according to an active global fixed income strategy. Securities issued by the state of Kentucky, its subsidiaries or affiliates, are prohibited. Unless otherwise specifically prohibited herein, any security in the benchmarks are permissible. It is anticipated that the Advisor will add value over the benchmark through fixed income sector rotation, fundamental bottom up, relative value security selection and currency management.

## **INVESTMENT OBJECTIVES**

The Investment Objectives define the quantifiable measures by which the results of the portfolio will be measured and evaluated on an ongoing basis. Both risk and return measures will be used to identify the results and progress of the portfolio. Both short and long-term performance will be monitored; the Investment Objectives outlined in this document will address the evaluation process. Therefore, the Investment Objectives of the portfolio are as follows:

Risk in the portfolio is defined by the frequency and magnitude of principal loss. The portfolio will invest in those assets that are similar in risk to those in the Barclays Capital Multiverse Index. The Advisor will attempt to manage those risks through careful and extensive research, and ongoing monitoring of investments. It is anticipated that the Advisor will keep relative losses to a minimum. Nevertheless, the absolute level of losses will be taken into consideration in conjunction with the portfolio's total return.

**Return volatility** is defined by standard deviation. The standard deviation of return provides a means of measuring the total risk of a portfolio by quantifying the variability (or volatility) of the monthly returns around a mean or average return. Because the standard deviation of return identified in absolute terms is of little value, a relative measure to an appropriate market

benchmark is required. The benchmark used will be one comprised of 100% Barclays Capital Multiverse Index. Therefore, the combined risk objective of the portfolio is stated as follows:

**Return Volatility** – The standard deviation of return of the overall portfolio is expected to be approximately equal to: the standard deviation of return Barclays Capital Multiverse Index over a three (3) year time horizons.

It is anticipated that the portfolio will operate with an ex-post tracking error target of 6.0% and a targeted outperformance of 1.25% net of fees, over a market cycle which is typically three (3) to five (5) years. Tracking error is measured as the standard deviation of the portfolio's monthly excess return to the Barclays Capital Multiverse Index.

It is understood that there could be times when the tracking error objective, the target excess return objective, and the goal of preserving principal may be in conflict. It is expected that the Advisor will manage the portfolio in a risk aware manor and that the tracking error can exceed the target range in order to preserve principal. Examples where this might be appropriate are: 1) a period where the benchmark experiences a prolonged or deep drawdown such as what the high yield markets experienced in 2008 or 2) when the benchmark value increases due to credits that in the judgment of the Advisor are inappropriate for the KRS portfolio based on fundamental and risk analysis and are in conflict with the goal of preserving principal. When the Advisor deems it necessary to take such actions as to deviate from the target tracking error range, the Advisor must inform KRS in writing of such action prior to taking such action. The written notification must include the explanation for the deviation from the target tracking error and an agreed upon duration and expiration date of such action between KRS and the Advisor.

Return of the overall portfolio is defined by total return that includes both price appreciation or depreciation and income on a total portfolio basis. The return objective of the overall portfolio is to maximize the return relative to the Barclays Capital Multiverse Index given the tracking error objective specified. The return objective of the portfolio, which will be measured approximately over a three to five year time horizon, is as follows:

**Relative Return** – Consistent with the tracking error objective specified, the overall portfolio is targeted to generate an annualized total return of the Barclays Capital Multiverse Index plus 125 basis points after management fees.

## **INVESTMENT GUIDELINES & RESTRICTIONS:**

Investment Guidelines and Restrictions establish the parameters for the Advisor to follow while constructing and maintaining the portfolio. These Guidelines address the portfolio in terms of asset allocation, eligible investments, diversification, liquidity needs, turnover, and investment characteristics.

## > Benchmark and Duration

- o The Benchmark shall be 100% Barclays Capital Multiverse Index.
- o The effective duration of the portfolio shall be maintained within +/- 1.50 years of a 4 year effective duration target. For the purpose of calculating effective duration (i.e., option adjusted duration), the PM shall use conventional quantitative techniques.
- ➤ **Asset Allocation** The portfolio is expected to be fully invested in listed securities consistent with a global fixed income mandate. Cash invested in STIF, not including cash held for investments yet to settle, shall not exceed 5% of the portfolio without prior written consent from KRS. Cash equivalents, those investment grade securities with a duration of one year or less, will be allowed to

- be held for collateral towards derivative positions. Cash equivalents will also be allowed to be held if used towards expressing a view on the yield curve.
- **Eligible Securities** Those securities that are considered to be acceptable for the portfolio are detailed in the table below along with exposure limitations to those securities.

Instrument Type	Maximu	ım Exposure
	Sector	Issuer
Sovereign Securities	100%	
U.S. Treasury securities	75%	75%
Securities issued or guaranteed by an agency of the U.S. Government backed by the full faith and credit of the U.S. Government or securities fully collateralized by the foregoing securities.	60%	30%
Securities issued or guaranteed by a U.S. Agency or Government Sponsored Enterprise ("GSE") that are not backed by the full faith and credit of the U.S. Government or fully collateralized by the foregoing securities.	20%	10%
Non-U.S. Developed Market Sovereign, Provincial, State, Local Authority and Supranational Securities	75%	20%
Emerging Market Sovereign Securities	35%	10%
(Mortgage-backed securities are not included in this category.)		T PO TOTOLOGICA
Credit Securities	75%	5%
Securities issued by a U.S domestic state or local government entity.	25%	5%
Securities of issuers classified in any one Credit industry sector, as defined in the Barclays Aggregate Index, shall not exceed 25%.	25%	
Investment grade securities issued by U.S corporations	40%	5%
Investment grade securities issued by non-U.S. corporation, including those in emerging markets	40%	5%
Non Investment grade securities issued by U.S. corporations,	40%	5%
Non-Investment grade corporate securities issued by non-U.S. corporation, including those in emerging markets	20%	5%

I	I	1
Non-Investment grade corporate securities	50%	5%
Deferred interest, zero coupon and pay-in-kind (PIK) bonds.	10%	5%
144a securities, regulation S bonds, and private placements	25%	5%
Performing bank loans and loan participations and assignments	25%	5%
Non-performing bank loans	5%	5%
Notes: Total bank loan exposure cannot exceed 25%. Non- performing bank loan is defined as a loan that has missed a coupon/interest payment.		700 000 000
When-issued or delayed delivery securities	10%	5%
Equity, Preferreds, REITS, ETFs	25%	5%
Equities, warrants, rights(only when attached to debt instruments)	10%	5%
Convertible securities, and preferred securities	25%	5%
REITS	10%	5%
ETFs	10%	5%
Securitized Securities	25%	
Interest only, principal only, Z, or other volatile tranches.	0%	0%
Agency pass-throughs (GSEs)such as Fannie Mae, Freddie Mac, etc.	25%	25%
CMOs, REMICS, Multi-family and Project Loans (issuer limit is per CUSIP)	25%	5%
Non-agency residential	15%	5%
Non-agency commercial	15%	5%
Asset-Backed Securities	25%	5%
Note: Securities collateralized by manufactured housing loans and home equity loans shall be classified as ABS and not MBS.		

Cash and Cash Equivalents	5%	5%
Cash invested in STIF, not including cash held for investments yet to settle, shall not exceed 5% of the portfolio without prior written consent from KRS. Cash equivalents, those investment grade securities with a duration of one year or less, will be allowed to be held for collateral towards derivative positions.	·	
Derivatives (excluding Currency)	50%	
The use of derivatives may not create a leveraged position.  Derivatives can be used for investment, market exposure, or risk management purposes. Derivatives can be used to express a yield curve view. Derivatives can be used to gain interest rate exposure and to provide a means to adjust portfolio duration and maturity mix. Cash must be held as collateral against a derivative's net market value position. The issuer percentage with regard to "over the counter" derivatives is referring to counterparty exposure on a net market value basis. Maximum derivative exposure shall be measured on a net notional basis.		
Interest rate futures and forwards notional value Note: Forwards are measured on a net notional basis and futures on a gross notional basis.	50%	10%
TBAs (Mortgage)	25%	10%
IOs, POs	none	none
Interest Rate Swaps	50%	10%
Credit Default Swaps	none	none
Interest Rate Options as valued by the KRS custodian	50%	10%
Currency	75%	10%
Currency derivatives can be used for investment, market exposure, or risk management purposes. Forward foreign exchange contracts, currency futures, options and swaps may be used to hedge and cross-hedge non-U.S. Dollar exposure. Cash must be held as collateral against a derivative's net market value position. The issuer percentage with regard to "over the counter" derivatives is referring to counterparty exposure on a net market value basis. Maximum derivative exposure shall be measured on a net notional basis.		
	75%	10%

Forward foreign exchange contracts, currency futures, options	
and swaps.	

### Additional Limits -

- o Other than U.S. Government Securities, securities that achieve their rating by virtue of a third-party are limited to 10% per guarantor. The applicable issuer limit will still apply to the underlying issuer.
- o Non-U.S. denominated securities is limited to 75% of the aggregate portfolio.

## Credit Quality -

- o To determine an individual security's rating and average portfolio credit quality, the methodology employed from time to time by the Barclays Capital Global Family of Indices then in effect (the "Barclays Index Methodology") shall be used.
- O The maximum exposure to non-rated securities will be 10% of the aggregate portfolio value. An equivalent rating determined by the Manulife research department will be used for calculation of the aggregate portfolio rating.
- o The average portfolio credit quality shall be BBB-/Baa3 or better.
- o The minimum rating for a counter party is A- by S&P, or an equivalent rating by another NRSRO.
- o The minimum rating for commercial paper is A1/P1.
- o The maximum exposure to any one counter party will be 10% of the aggregate portfolio value based on net market value exposure.
- ➤ **Diversification** KRS expects the Advisor to display due diligence and prudence when constructing the portfolio in an effort to minimize a dramatic exposure to any single economic sector, industry or individual issuer. To this end, the amount invested in the debt of a single corporation shall not exceed 5% of the total market value of the KRS' assets. Further, Manulife shall not invest more than 5% of the market value of assets held in any single issue, with the exception of U.S. Government issued, guaranteed or agency obligations.
- ➤ **Liquidity Needs** This portfolio is directly targeted to provide KRS with both core U.S. fixed income and global fixed income exposure, and current income. From time to time the portfolio may be called upon to provide additional liquidity for KRS' Funds. Under extreme conditions it may become necessary to deplete the entire portfolio's corpus.
- > Turnover There are no specific restrictions regarding the rate of turnover in the portfolio. KRS recognizes the Advisor's use of active trading to capture incremental value due to inventory imbalances, acting as a provider of liquidity to the secondary market, and mispricings. KRS will monitor the portfolio turnover levels and expects the Advisor to exercise prudent judgment when addressing the issue of portfolio turnover. The Advisor shall foremost seek to achieve "best execution" when transacting
- ➤ **Investment Characteristics** are measured at the portfolio level at the end of each calendar month. The investment characteristics of the portfolio should be consistent over time and representative of an active global fixed income management style consistent with Barclays Capital Multiverse Index.

### Other -

- o Unless a security type is specifically allowed by these guidelines it is prohibited.
- o In the event that a security fails to meet any of the guidelines defined above, the Advisor must sell the security within 10 (ten) **b**usiness days or notify KRS as to why, in the Advisor's judgment, sale should further be delayed and receive KRS approval to continue to hold the security.

## **COMMUNICATIONS**

Periodic face to face portfolio review meetings are expected to take place as required in the Contract, but no less than once a year. Meeting dates will be scheduled with all parties in advance and the agenda for such meetings should include, but not limited to, the following:

- 1. Presentation of investment results compared to prior forecasts and stated objectives.
- 2. Review of current investment strategies, performance attribution and risk exposures.
- 3. Discussion of any material changes in policy objectives, staffing or business conditions of the Adviser.
- 4. Identification of any guideline or compliance breaches.

Manulife shall make available via a conference call on a monthly basis a qualified person to discuss the prior month's performance of the KRS portfolio and at least on a quarterly basis the portfolio manager who is directly in charge of the KRS portfolio should be available via a conference call to discuss the prior quarter's performance.

## REPORTING

The Advisor will provide performance reports (three hard-copies or electronic reports) to KRS by the 15th business day of each month for activities in the preceding month. Total market included in reporting will be that determined by KRS' custodian. All such return calculations contained in these reports will adhere to GIPS standards. In general, these reports will be composed of the following (on a "trade date" basis):

1. A summary of performance results containing the total rates of return for the portfolio and the benchmark, as follows:

Last	Last	Trailing	Trailing	Trailing	Inception
Month	Quarter	1-YR	3-YR	5-YR	to Date

- 2. Portfolio characteristics in comparison to benchmark.
- 3. Individual security holdings at cost and market, including original face amounts.
- 4. Transactions for the prior month by individual security, including buys, sells, income and principal paydowns.
- 5. Summary information in the following format for the portfolio and benchmark:
  - a. Sector market value comparison to benchmark
  - b. Sector duration comparison
  - c. Contribution to duration
  - d. Average coupon, average yield, and modified duration
  - e. Credit quality by market value comparison
  - f. Credit quality duration comparison
  - g. Contribution to duration by credit quality

- h. Average credit quality versus benchmark
- i. Corporate credit exposure summary broken down by sectors and industries.
- 6. The Advisor will provide information to the Custodian regarding the activities within the portfolio. The Advisor is expected to reconcile all portfolio asset values and the portfolio cash balance with the Custodian by the 5<sup>th</sup> business day after the Advisor has received finalized valuations from the Custodian for activities in the preceding month. Reconcilements must be completed before advisory fees are remitted. Discrepancies of greater than 1% in market value will be referred to KRS for approval.

A cash reconciliation statement which reconciles the difference between the cash position reported by the Advisor and the cash position reported by the Custodian shall be provided to KRS as part of the monthly performance report.

In addition to these reports, the Advisor will provide information to both KRS' Custodian and Consultant regarding the activities within the portfolio.

7. A separate report for derivatives showing notional exposure, market value, and counter party exposure (gross and net), if applicable by individual security.

The specific reporting formats that are listed in this section are suggested for the Advisor's use by KRS. Deviations from these formats by the Advisor may be acceptable with prior consent of KRS.

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Kentucky Retirement Systems	Manulife Asset Management (US) LC
BY: 77 Carlon	BY: Sunth
T.J. Carlson (/	DIANSE (LAMPANO
Chief Investment Officer	VY (NO
Date: $(1-\partial \partial - 1)$	Date: 11-33-11

### ATTACHMENT III

### Fee Schedule

Fees are paid quarterly in arrears upon submission of an invoice by Manager. Fees shall be computed on the basis of the average of the adjusted closing market value of assets as determined by the Master Custodian on the last business day of each month in the calendar quarter, in accordance with the following schedule;

The annual advisory fee for the portfolio is calculated as follows:



**NOTE:** For billing purposes, the average market value of assets for the KRS Pension Portfolio and the KRS Insurance Portfolio will be aggregated in order to calculate fees. Each account will be billed a prorated share of the fees based on the total average market value of assets invested by each account in the strategy.

If an investment strategy utilizes a commingled, pooled fund, mutual fund, money fund, or other vehicle which has a built in management fee, these fees will be identified and reimbursed to KRS Account and the Managers Fee Schedule will be applied, or the Manager will deduct the assets already assessed a fee, from their fee calculation. (Details shown on the invoice.) Any over-billing will be reimbursed to KRS Account immediately.

## PRO-RATION OF CONTRIBUTIONS/WITHDRAWALS

Fees are calculated at the end of each calendar quarter on the basis of the average of the closing market value of assets on the last day of each month in the calendar quarter; provided however, that the market value shall be adjusted such that contributions and disbursements made during the quarter (and which constitute greater than 1 (one) percent of the total portfolio market value) shall be billed on a pro rata basis for the amount of time under management.

The **adjusted monthly market value** = month-end asset value adjusted for contributions or withdrawals made by KRS.

- (a) For **contributions to** the assets in the account after the first business day of a month, the adjusted ending assets will be determined by subtracting from the closing value of the account on the last business day of the month an amount equaling the product of (x) the quotient derived by dividing the amount of the contribution by the number of days in the month, and (y) the number of days from the beginning of the month to the transfer date.
- (b) For withdrawals from the account after the first business day of a month, the adjusted assets will be determined by adding to the closing value of the account on the last business day of the month an amount equaling the product of (x) the quotient derived by dividing the amount of the

withdrawal by the number of days in the of the month to the transfer date.	
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# ATTACHMENT IV

# Statement of Disclosure and Placement Agents

Contained at the KRS web site, at: <a href="http://kyret.ky.gov/index.php/investments">http://kyret.ky.gov/index.php/investments</a>, and copy attached on subsequent pages.



#### L Parnose

This Policy sets forth the disclosure requirements which must be satisfied prior to any Kentucky Retirement Systems ("KRS") investment if a placement agent is involved. KRS shall require the disclosure of detailed information regarding payments and fees in connection with KRS' investments in or through External Managers (as defined herein), broker/dealers, Placement Agents (as defined herein) and those having or conducting business with KRS. This Policy is intended to apply broadly to all of the types of investment advisors with whom KRS conducts or potentially conducts business with including general partners, managers, investment managers and sponsors of hedge funds, funds of funds, private equity funds, real estate funds, infrastructure funds, as well as investment managers retained pursuant to a contract. KRS requires broad, timely, and annual updated disclosures of relationships, compensation and fees. The goal of this Policy is to bring transparency to placement agent activity in connection with KRS' investments and help ensure that KRS' investment decisions are made solely on the merits of the investment opportunity and in a manner consistent with the responsibilities of the Board of Trustees and individuals who owe a fiduciary duty to KRS.

#### II. Objectives

The role and function of Placement Agents are to provide sales and marketing services to investment management firms. Placement Agents exist because, with the exception of the largest firms (i.e., private equity and hedge fund general partnerships), many of these investment managers are not equipped to raise their investment funds independently. Most External Managers do not have the resources internally to access the capital markets. They require services such as crafting presentations, drafting, proofing and distributing private placement memorandums, sorting the potential universe of limited partners and determining how to access those limited partners, arranging meetings with the limited partners, handling follow-up meetings, assisting in the due diligence process including managing on-site due diligence meetings, and the closing process.

External investment managers in both the public and private markets use Placement Agents to assist them raise capital from various sources. Therefore, the Kentucky Retirement Systems' objectives are:

- To ensure that KRS' investment decisions are consistent with KRS' overall investment Policy Statements
- To supplement the due diligence and information available to KRS Board Members, Staff, and Consultants when evaluating an investment opportunity
- To prevent impropriety, conflicts of interest, and/or the appearance of improprieties and/or conflicts of interest
- 4. Provide transparency and confidence in KRS investment decision-making and process

III. Application

#### IV. Responsibilities:

### A. External Manager's Responsibilities

Prior to KRS investing with any manager, KRS Staff shall obtain a written representation from the investment manager, in a form acceptable to KRS' Legal Office, stating that the investment manager has not used a placement agent in connection with the KRS investment opportunity, or if the manager has used a placement agent, it will disclose the following to KRS:

- The name of the placement agent
- The fee paid or payable to the placement agent
- Representation that the fee is the sole obligation of the investment manager and not that
  of KRS or the limited partnership
- Current or former Kentucky Officials (federal, state, and local government), KRS Board
  of Trustees members, KRS employees, or consultants to KRS that are receiving any fees
  or compensation from the External Manager and/or placement agent
- The names of any current or former Kentucky elected or appointed government officials (federal, state, and local government) KRS Board of Trustees members, employees, or consultants of KRS, or any other person, if any, who suggested the retention of the placement agent
- Evidence of the regulatory agencies, if any, in any Federal, state or foreign jurisdiction
  the placement agent or any of its affiliates are registered with, such as the Securities and
  Exchange Commission ("SEC"), FINRA, or any similar regulatory agency
- A resume for each officer, partner or principal of the Placement Agent detailing the
  person's education, professional designations, regulatory licenses and investment and
  work experience
- A description of the services to be performed by the Placement Agent
- A statement whether the Placement Agent, or any of its affiliates, is registered as a lobbyist with any and all Kentucky state and local (county) governments
- A statement by the External Manager and/or placement agent representing and warranting the accuracy of the information provided to KRS regarding the Statement of Disclosure in any final written agreement with a continuing obligation to update any such information within 10 business days of any change in the information.

In the event a placement agent is expected to receive remuneration for a KRS investment, KRS Staff will notify the Investment Committee in the memorandum discussing the recommended/approved investment. If a manager breaches the Policy, Staff will notify the Investment Committee as soon as practicable.

### B. KRS Staff Responsibilities

KRS staff are responsible for:

- Providing the public with disclosure by posting a copy of this Policy on KRS' website
- Implementing this Policy on behalf of KRS with each Division Director responsible for their specific asset class
- Providing regular disclosure updates to the KRS Investment Committee and the Board of Trustees.

All parties responsible for implementing, monitoring and complying with this Policy shall consider the spirit as well as the literal expression of the Policy.

Page 2 of 4

#### V. Conflict of Interest

All persons and entities contracting with KRS shall certify that they are legally capable of entering into a binding contract and authorized to do so; that they are not nor shall be in violation of any Kentucky law, statute or regulation pertaining to a conflict of interest including, but not limited to, KRS 121.056; and that they are not nor shall be in violation of any provision of KRS Chapter 11A or any regulation promulgated thereunder, or any law or regulation pertaining to the Kentucky Registry of Election Finance and the reporting requirements thereof.

All persons and entities seeking to or actually contracting with KRS shall disclose all relationships and potential conflicts of interest with any KRS Staff, Committee or Board Member. Any disclosed conflicts of interest will be discussed at the Investment Committee as to the severity of the conflict and the appropriate resolution. Options the Investment Committee might recommend include but are not limited to: no action required; conflicted party abstention, and refusal to invest. Subsequent discovery of any undisclosed conflict may be considered a breach of contract and may result in immediate termination of any agreements without penalty or fee to KRS.

### Glossary of Terms

#### KRS Vehicle

A partnership, limited liability company, account or other investment vehicle in which KRS is the investor.

#### Consultant

Consultant refers to individuals or firms, and includes Key Personnel of Consultant firms, who are contractually retained or have been appointed to KRS to provide investment advice to KRS but who do not exercise investment discretion.

#### External Manager

An asset management firm that is seeking to be, or has been, retained by KRS or by a KRS Vehicle to manage a portfolio of assets (including securities) for a fee. The External Manager usually has full discretion to manage KRS assets, consistent with investment management guidelines provided by KRS and fiduciary responsibility.

## Placement Agent

Any person or entity hired, engaged or retained by or acting on behalf of an External Manager or on behalf of another Placement Agent as a finder, solicitor, marketer, consultant, broker or other intermediary to raise money or investments from or to obtain access to KRS, directly or indirectly, including without limitation through a KRS Vehicle.

Placement Agents exist because, with the exception of the largest firms (i.e., private equity and hedge fund general partnerships), many of these investment managers are not equipped to raise their investment funds independently. They require services such as crafting presentations, drafting, proofing and distributing private placement memorandums, sorting the potential universe of limited partners and determining how to access those limited partners, arranging meetings with the limited partners, handling follow-up meetings, assisting in the due diligence process including managing on-site due diligence meetings, and the closing process.

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Signatories

As Adopted By The Investment Committee
Date: August 2, 2011

As Adopted By The Board of Trustees
Date: August 18, 2011

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Signature: Jennifer El

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# Kentucky Retirement Systems

# Statement of Disclosure and Placement Agents - Manager Questionnaire

 Did your firm use a placement agent as defined in the KRS "Statement of Disclosure and Placement Agents" policy in an effort to solicit an Investment from KRS? If yes, please continue to question 2; if no, please proceed to question 10.

Answer: No.

- Please disclose the name of the placement agency used, the names of the individuals contracted by the placement agency (either as employees or as sub-agents) in order to solicit an investment from KRS, and the fees paid or payable to the placement agent in connection with a prospective KRS investment.
- Please represent that any fees paid to placement agents are the sole obligation of the investment manager and not that of KRS or the limited partnership.
- 4. Please disclose the names of any current or former Kentucky elected or appointed government officials (federal, state, and local government), KRS Board of Trustees members, employees, or consultants of KRS, or any other person, if any, who suggested the retention of the placement agent.
- Please provide evidence of the regulatory agencies, if any, in any Federal, state or foreign jurisdiction the placement agent or any of its affiliates are registered with, such as the Securities and Exchange Commission ("SEC"), FINRA, or any similar regulatory agency.
- Please provide a resume for each officer, partner or principal of the Placement Agent detailing the
  person's education, professional designations, regulatory licenses and investment and work
  experience.
- 7. Please describe the services to be performed by the Placement Agent.
- 8. Please disclose whether the Placement Agent, or any of its affiliates, is registered as a lobbyist with any and all Kentucky state and local (county) governments.

- Please disclose any political contributions made by the Placement Agent to any Kentucky official within the prior 2 years.
- 10. Please disclose the names of any current or former Kentucky elected or appointed government officials (federal, state, and local government) KRS Board of Trustees members, employees, or consultants of KRS that are receiving any fees or compensation from the External Manager and/or placement agent. Please disclose any additional known relationships or conflicts with same.

Answer: No current or former Kentucky elected or appointed government officials (federal, state, and local government) KRS Board of Trustees members, employees, or consultants of KRS are receiving any fees or compensation from the External Manager and we are not aware of any relationships or conflicts with same.

 Please disclose any political contributions made by External Manager or principals of the External Manager in the prior 2 years.

Answer: As of the date of this document, neither External Manager nor its principals are aware of any political contributions made to officials in the state of Kentucky during the prior 2 years.

12. Please disclose whether any principals of the firm have been involved in any regulatory proceedings, and if so, details concerning the same.

Answer: No principals of the firm have been involved in any regulatory proceedings.

13. Please provide a statement representing and warranting the accuracy of the information provided to KRS regarding the Statement of Disclosure, and acknowledge that similar language will be included in any final written agreement with a continuing obligation to update any such information within 10 business days of any change in the information.

The undersigned hereby represents and warrants that the information provided to KRS in this Statement of Disclosure is true and accurate as of the date executed below. External Manager agrees to include these same or similar representations in any final written agreement and further agrees to notify KRS if there are any changes to the information provided in this statement.

Signatura

Date

Print Name: Diane R. Landers

Firm Name: MANULIFE ASSET MANAGEMENT (US) LLC

# ATTACHMENT V

# Compliance Certificate

As a duly authorized officer of **Manulife Asset Management (US) LLC** (the "Investment Manager"), I hereby certify that I am familiar with that certain Investment Management Agreement dated November \_\_\_, 2011 (the "Agreement") between Kentucky Retirement Systems and the Investment Manager relating to investment of certain KRS assets by the Investment Manager. In addition, to the best of my knowledge after diligent inquiry, I hereby certify to KRS that:

	Manager relating to investment of co	ertain KRS assets by the Investment Manager. In gent inquiry, I hereby certify to KRS that:	
(a)	All investments of the KRS assets made by the Investment Manager during the fiscal year ending June 30,, were made within applicable Investment Policy and Procedures incorporated in the Agreement at the time each investment was made, except as set forth below;		
(b)		in the portfolio managed by the Investment Manager are nt Policy and Procedures currently applicable under the elow;	
(c)	key staff of KRS, and no person of Trustees has contacted the Invest	ne 30,, no member of the KRS Board of Trustees, or claiming to represent or have influence with the Board of ment Manager with respect to a financial transaction or a behalf of KRS with the Investment Manager, except as	
(d)	covenants in the Agreement which limited to any indemnity or insur-	mpliance with all representations, warranties and ch apply to the Investment Manager, including but not ance coverage requirements, except as set forth below. cable to KRS's assets are as follows: (Please attach	
	missions dedicated to the Agreeme	nt: Date of expiration:	
	al aggregate:		
Brokers blan	ket bond or similar coverage:	Date of expiration:	
Other:		Date of expiration:	
	Exceptions: (Attach	a separate sheet if necessary.)	
Dated:	<u> </u>	Ву:	
	•	Name:	
		Title:	

## ATTACHMENT VI

# **Authorized Persons**

Systems' designated positions listed below are authorized to provide verbal and written instructions and notices on behalf of Systems. Such instructions may be provided by facsimile or e-mail. Manager may conclusively rely on the instructions and notices received from any one of these authorized persons unless notified to the contrary.

Chief Investment Officer		,
Incumbent: TJ Carlson (502) 696-8442 phone; (502) 696-8805 fax		
Signature:	· 	
Director of Equity Assets		· .
Incumbent: Carlos B. Cracraft		
(502) 696-8445 phone; (502) 696-8805 fax		
Signature:		
Director of Fixed Assets		
Incumbent: David Peden		
(502) 696-8485 phone; (502) 696-8805 fax		
Signature:		,
Director of Alternative Investments		
Incumbent: Brent Aldridge		
(502) 696-8633 phone; (502) 696-8805 fax		,
Signature:		
<b>Executive Director</b>		
Incumbent: Bill Thielen		
(502) 696-8455 phone; (502) 696-8801 fax	•	
Signature:	· ·	•
I hereby certify that the above individuals have such authorization remains in force as of this da		dicated above, and tha
Signed:	Dated:	
Jennifer Jones		
Interim General Counsel		
(502) 696-8645 phone; (502) 696-8801 fax		