FOURTH AMENDMENT TO INVESTMENT MANAGEMENT AGREEMENT

This Fourth Amendment to the Investment Management Agreement (this "Amendment") by and between Waterfall Asset Management, LLC (the "Manager") and Kentucky Retirement Systems (Insurance Fund and Pension Fund (the "Fund") is made and entered into as of June 30, 2017.

WHEREAS, the Manager and the Fund have entered into an Investment Management Agreement, dated January 13, 2010 (the "Investment Management Agreement"), as amended by (i) the First Amendment to Investment Management Agreement, dated as of January 1, 2013 (the "First Amendment), (ii) the Second Amendment to Investment Management Agreement, dated as of July 19, 2016 (the "Second Amendment"), and (iii) the Third Amendment to Investment Management Agreement, dated as of April 3, 2017 (the "Third Amendment" and collectively with the Investment Management Agreement, the First Amendment and the Second Amendment, the "Agreement")), whereby the Fund has engaged the Manager to provide investment advisory services to the Fund on the terms and conditions set forth in the Agreement and the schedules attached thereto; and

WHEREAS, the Manager and the Fund desire to amend, effective as of the date hereof, the terms and the conditions of the Agreement solely to the extent set forth herein.

NOW, THEREFORE, in consideration of the mutual promises and covenants herein set forth and for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Agreement is hereby amended as follows:

- Schedule I Investment Guidelines. Amended and Restated Schedule I, attached to the First Amendment, is hereby amended and restated in its entirety to reflect the amendments provided under the Second Amendment and certain additional amendments as agreed upon by the parties hereto, and shall hereafter be and read as provided in Exhibit A, attached to this Amendment and incorporated for all purposes.
- 2. <u>Schedule III Fee Calculation.</u> Schedule III, attached to the Agreement, is hereby amended and restated in its entirety to reflect the amendments provided under the Third Amendment, and shall hereafter be and read as provided in Exhibit B, attached to this Amendment and incorporated for all purposes.
- 3. This Amendment embodies the entire agreement between the Manager and the Fund with respect to the amendment of the Agreement. In the event of any conflict or inconsistency between the provisions of the Agreement and this Amendment, the provisions of this Amendment shall control and govern.
- 4. Except as specifically modified and amended herein, all of the terms, provisions, requirements and specifications contained in the Agreement remain in full force and effect. Except as otherwise expressly provided herein, the parties do not intend to, and the execution of this Amendment shall not, in any manner impair the Agreement, the purpose of this Amendment being simply to amend and ratify the Agreement, as hereby amended and ratified, and to confirm and carry forward the Agreement, as hereby amended, in full force and effect.

5. THIS AMENDMENT SHALL BE CONSTRUED AND GOVERNED BY THE LAWS OF THE COMMONWEALTH OF KENTUCKY.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the Manager and the Fund have executed and delivered this Amendment effective as of the date first written above.

KENTUCKY RETIREMENT SYSTEMS (INSURANCE FUND AND PENSION FUND)	WATERFALL ASSET MANAGEMENT, LLC
ву:	By:
Name: James R. Robber	Name:
Title: Literin CTO	Title:

EXHIBIT A

SCHEDULE I

SECOND AMENDED AND RESTATED INVESTMENT GUIDELINES

WATERFALL ASSET MANAGEMENT, LLC

PURPOSE

This Second Amended and Restated Investment Strategy Statement (the "Second Amended and Restated Document"), hereby amends and restates, in its entirety, the Investment Strategy Statement which is attached as EXHIBIT A to the First Amendment to Investment Management Agreement (the "Amendment") dated January 1, 2013, which amends the Investment Management Agreement (the "Contract") dated January 13, 2010, between Waterfall Asset Management, LLC (the "Manager" or "Advisor") and Kentucky Retirement Systems (Insurance Fund and Pension Fund)(collectively, the "Fund" or "KRS"), pursuant to which Advisor manages an Account containing ABS Fixed Income investments for KRS, as specified in more detail in the Contract and in this SCHEDULE I.

The Second Amended and Restated Document identifies the goals of the portfolio and the expectations of the investment advisory relationship between Advisor and 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 Second Amended and Restated 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 KRS a source of structured finance fixed income exposure on an opportunistic basis. It is intended that this portfolio be a source of both capital appreciation and cash flow to KRS. It is expected that all principal paydowns will be reinvested by the adviser in year one of the portfolio and that the duration constraints described below will be followed. After the first anniversary of the portfolio the principal paydowns will be swept by KRS and will not be available for reinvestment by the Adviser. After the first anniversary of the portfolio the duration constraints are subject to adjustment based on the realized and expected cash flows of the portfolio.

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. 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, including any subsequent amendments to this Policy.

The Advisor will manage the assets of the portfolio according to the guidelines and constraints laid out in this document. The investment universe is limited to fixed income instruments in the structured finance space, including, but not limited to, instruments denominated in U.S. dollars that are either registered and publicly traded in the United States or that are exempt from registration under Section 3(a), Rule 144A or Regulation S of the Securities Act of 1933. Securities issued by the state of Kentucky, its subsidiaries or affiliates, are

prohibited. It is anticipated that the Advisor will add value through the execution of a fundamental, bottom up, relative value investment approach, which relies upon security selection over a full market cycle.

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:

- > To achieve attractive risk adjusted returns through a combination of current income and capital appreciation, subject to the constraints in these investment guidelines.
- Risk in the portfolio is defined by the frequency and magnitude of principal loss. The Advisor will attempt to manage those risks through careful and extensive research, and ongoing monitoring of investments. The risk in the portfolio will be measured based upon expected and actual losses of capital. 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. The volatility should be appropriate based on the corresponding return. We will evaluate the risk/return profile by comparing the Sharpe Ratio of this opportunity to a benchmark comprised of 40% the Barclays Capital U.S. Floating Rate ABS Index and 60% Barclays Capital U.S. High Yield Index.
- 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 given the risk and volatility constraints above. The return objective of the portfolio will be measured approximately over a one, three, and five year time horizon.

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

- The benchmark will be comprised of 40% the Barclays Capital U.S. Floating Rate ABS Index and 60% Barclays Capital U.S. High Yield Index. KRS will not measure the portfolio's return individually or standard deviation individually on a relative basis versus the benchmark return and standard deviation respectively but will be measuring the portfolios risk/return profile as measured by the Sharpe ratio versus the Sharpe ration of the benchmark. The benchmark will be used as a directional indicator for an actively managed portfolio and the portfolio manager is not restricted by the underlying characteristics of the benchmark, but rather will be broadly guided by the overall profile characteristics of the benchmark. In addition, the return will not be measured on a relative basis to this benchmark.
- The effective modified duration of the portfolio shall be in a range of 3 years plus or minus 2 years. It is expected the duration will be at the lower end of this range. For the purpose of

- > Asset Allocation The portfolio is expected to be fully invested in securities consistent with the investment guidelines of this fixed income mandate. Cash invested in STIF and short-term U.S. Government securities, not including cash held for investments yet to settle, shall not exceed 15% of the portfolio without prior written consent from KRS.
- ➤ 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	Maximum Exposure	
	Sector	Issuer
Mortgage-Backed Securities	70%	5%
Residential Mortgage-Backed Securities	35%	5%
Prime Loans	35%	5%
Alt A Loans	25%	5%
Subprime Loans	25%	5%
Collateralized Mortgage Obligation		T 0.4
Commercial Mortgage-Backed Securities ("CMBS")	35%	5%
(Includes Commercial Real Estate CDOs)	60%	5%

The issuer of a non-agency mortgage-backed security will be considered to be the trust that holds the associated collateral, and the issuer limits will apply to securities representing claims against any one such interest.

Asset-Backed Securities	100%	5%
Securities collateralized by manufactured housing loans and home equity loans shall be classified as ABS and not MBS.		
Auto Leases and Loans	25%	5%
Aircraft Leases and Loans	25%	5%
Credit Cards	25%	5%
Equipment Leases and Loans	25%	5%

Home Equity Loans	25%	5%
Manufactured Housing	25%	5%
Student Loans	25%	5%
Esoteric/Other (Sectors in this category shall include, but not be limited to insurance premium loans, recreational vehicle loans, catastrophe securities, future flow receivables, dealer floor plan loans, health care receivables, net interest margin securities, reverse mortgages, franchise loans, and time share loans. Each sector shall be considered separately in calculating the maximum sector exposure limit.)	20% (per sector)	5%
The issuer of an asset-backed security will be considered to be the trust that collateral, and the issuer limits will apply to securities representing claims against a		
The issuer of an asset-backed security will be considered to be the trust that collateral, and the issuer limits will apply to securities representing claims against a Collateralized Debt Obligation ("CDO") (Excludes Commercial Real Estate CDOs; All TRUP CDOs are permitted)		
collateral, and the issuer limits will apply to securities representing claims against a Collateralized Debt Obligation ("CDO")	any one suc	h trust.
collateral, and the issuer limits will apply to securities representing claims against a Collateralized Debt Obligation ("CDO") (Excludes Commercial Real Estate CDOs; All TRUP CDOs are permitted)	any one suc 25 %	h trust. 5%

Non-U.S. Dollar Denominated Assets/Currency Hedging – Securities or obligations of persons that, as determined by the Advisor in its sole discretion, are headquartered in jurisdictions other than the United States or that have substantially all of their assets or business operations outside of the United States, which may be denominated in U.S. dollars or foreign currencies shall be considered acceptable for the portfolio. In addition, the Advisor shall be permitted to purchase foreign currencies and to engage in foreign currency exchange transactions, including, but not limited to, swaps, on behalf of the portfolio, including contracts with banks or other foreign currency brokers or dealers to purchase or sell or have the option to purchase or sell foreign currencies at a future date to hedge against changes in foreign currency exchange rates in connection with the assets of the portfolio and in connection with the settlement or facilitation of transactions in securities or obligations denominated in foreign currencies.

- ➤ Interest Rate Hedging The Advisor shall be permitted to enter into futures and swaps transactions in order to hedge against U.S. and non-U.S. interest rate risk.
- ➤ Special Purpose Vehicles On behalf of the Fund, the Advisor is authorized to purchase and hold assets in special purpose vehicles or similar structures (each an "SPV", collectively, the "SPV's"). The assets in each such SPV may contain assets which would otherwise not be Eligible Securities, including, but not limited to, real estate loans, equity and related investments, and non-real estate-related investments.

Additional Limits –

- Securities that achieve their rating by virtue of a third-party are limited to 10% of the aggregate portfolio value per guarantor (ex. MBIA, AMBAC, FSA, etc). There are two exceptions to this rule: 1. those securities that have an explicit guarantee from the U.S. Treasury or Federal Reserve, 2. those securities where the underlying security is rated higher than the guarantor, KRS will recognize the underlying rating and those positions will not count against the exposure limit to certain guarantors. The applicable issuer limit will still apply to the underlying issuer.
- O A maximum of 60% of the aggregate portfolio value may be invested in the aggregate in Commercial Real Estate ("CRE"), CDOs, and CMBS.

Credit Quality –

- O Up to 100% of the aggregate portfolio value may be invested in non-investment grade securities as rated by a Nationally Recognized Statistical Rating Organization (NRSRO) as determined by the SEC, such as Moody's, S&P, and Fitch, among others.
- A maximum of 40% of the aggregate portfolio value may be invested in non-rated securities.
- There is not an average credit quality that is being targeted. KRS would prefer the highest average credit quality that corresponds to the optimal risk/return profile.
- ▶ 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 structured finance sector, industry or individual issuer. To this end, the amount invested in the debt of a single issuer shall not exceed 5% of the total market value of the KRS' assets. For purposes of credit card trusts, each trust will be consider an issuer rather than the name of the credit card company creating the trust. The only exception to the 5% max by issuer is if the security is U.S. Government issued, guaranteed or agency obligations.
- ➤ Liquidity It is not KRS' intention to use this portfolio for liquidity needs; however, under extreme conditions it may become necessary to deplete the entire portfolio's corpus. Therefore, all securities purchased in this portfolio must be able to be liquidated under normal market conditions. Due to the opportunistic nature of this portfolio this portfolio will not be an initial source of liquidity for KRS.
- > 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.

> Other – In the event that a security fails to meet any of the guidelines defined above, the Advisor must sell the security within 10 (ten) business 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.

Advisor should make available via a conference call on a monthly basis someone 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.

EXHIBIT B

SCHEDULE III

AMENDED AND RESTATED FEE CALCULATION

Investment Management Agreement Between the Fund

and

Waterfall Asset Management, LLC ("Manager")

Manager Compensation

The Fund shall pay the Manager a fee to be computed as follows, and no other payment shall be due the Manager, except as explicitly provided in the Agreement.

1. <u>Management Fee</u>. At the end of each calendar quarter during which this Agreement is in effect, the Manager shall be paid for its services hereunder during such calendar quarter an amount equal to 0.50% of the Fair Market Value of the Assets managed by the Manager hereunder.

"Fair Market Value" shall mean the fair market value as computed by the Custodian; the Custodian shall be free to accept or reject the guidance provided by Manager as to valuation in the Custodian's discretion. All management fees are calculated on Fair Market Value as of the final business day of the calendar quarter. However, contributions or withdrawals during any calendar quarter shall be added to or deleted from the Fair Market Value of the Assets as of the date of such contribution or withdrawal, and the fee shall then be calculated on a pro rata basis.

The management fee for the initial quarter will be prorated based upon the number of days in the quarter from the date of commencement of Manager services hereunder and will be based upon the initial amount of Assets in the Account. Also, the management fee for the final quarter will be prorated using the average daily Assets in the Account under management with Manager during such quarter.

2. Performance Fee. Subject to the "loss carryforward" provision below, on an annual basis, within 45 days following the end of each calendar year, the Fund shall pay the Manager a performance fee equal to: first, 10% of the amount by which the Assets in the Account at the end of the calendar year exceed the First Minimum Required Preferred Return Balance, but are less than the Second Minimum Required Preferred Return Balance; and second, 20% of the amount by which the Assets in the Account at the end of the calendar year exceed the Second Minimum Required Preferred Return Balance. For purposes of this calculation, "First Minimum Required Preferred Return Balance" for any calendar year shall be an amount equal to three month LIBOR plus a 2% hard hurdle on the amount of the Assets as of the beginning of such calendar year, adjusted for all deposits or withdrawals made during such calendar year and net of any management fee charged to the Account during the calendar year, and "Second Minimum Required Preferred Return Balance" shall be an amount equal to three month LIBOR plus a 5% hard hurdle on the amount of the Assets as of the beginning of such calendar year, adjusted for all deposits or withdrawals made during such

calendar year and net of any management fee charged to the Account during the calendar year. To the extent the return in respect of the Account for any calendar year is less than the First Minimum Required Balance, such underperformance will not be carried forward to any subsequent calendar year for purposes of the Performance Fee calculation.

Under a "loss carryforward" provision (sometimes referred to as a "high watermark"), net losses chargeable to the Account during any calendar year will be tracked in a memorandum account. To the extent there are any net profits allocable to the Account in any subsequent calendar year such net profits will reduce any positive balance in such memorandum account (but not below zero) before any Performance Fee may be paid. Any positive balance that remains in the loss carryforward memorandum account as of the end of any calendar year will be carried forward to the next calendar year.

For the purposes of this section, "three month LIBOR" shall be calculated by taking the sum of three month LIBOR published on Bloomberg on the last day of each of the prior four calendar quarters (or the first business day after the last day of such quarter if such day is a weekend or a holiday) (i.e., March 31, June 30, September 30 and December 31) and dividing by four.