

**Public School Employees' Retirement System (PSERS)
Responses to Public Pension Management and Asset Investment Review Commission (PPMAIRC)
Date Requests PSERS-001, 002 and 003.**

Public Pension Management and Asset Investment Review Commission (PPMAIRC)

Data Request: PSERS-001

Date submitted: June 11, 2018

Date for response: June 20, 2018

Stress Testing

1. Please provide a complete report of the system's most recent stress test.

**SEE PRESENTATION TO PSERS' INVESTMENT COMMITTEE: ASSET LIABILITY STUDY RESULTS
SEPTEMBER 15, 2017**

See File: PPMAIRC PSERS-001 #1.pdf

Fee transparency

2. Manager Level Transparency

- Please provide a comprehensive report that shows the complete cost terms (all levels of fees whether paid directly or indirectly and allocations of returns) for each investment manager. **PSERS DOES NOT MAINTAIN COMPLETE COST TERMS FOR EACH INDIVIDUAL INVESTMENT MANAGER.**
- Please provide information on valuation procedures for unrealized investments per manager. **See file PSERS-001 Response #2 Fee Transparency 2nd Bullet. Pdf**
See file PSERS-001 Response #2 Fee Transparency 2nd Bullet add'l. Pdf
- Please provide the benchmark used for each manager. **SEE QUARTERLY GENERAL INVESTMENT CONSULTANTS, #3 BELOW.**

3. Please provide quarterly fee reports for the past five years that show fees paid to each manager, including performance fees, descriptions of what levels of fees are included in the reports, and how the fees are calculated.

PSERS DOES NOT MAINTAIN QUARTERLY FEE REPORTS. FOR YOUR INFORMATION, ATTACHED ARE ANNUAL PRESENTATIONS ON TOTAL INVESTMENT EXPENSES (INCLUDING MANAGER FEES) FOR THE PAST 5 YEARS. INFORMATION ALSO CONTAINED IN BUDGET REPORTS CONVEYED ANNUALLY TO APPROPRIATE COMMITTEES OF THE GENERAL ASSEMBLY AVAILABLE ON PSERS WEBSITE. SEE QUARTERLY GENERAL INVESTMENT CONSULTANT REPORTS WITH QUARTERLY INVESTMENT INFORMATION AS FOLLOWS:

PSERS-001 Response #3 Fee Transparency FY 2013 Fees by Manager.pdf

PSERS-001 Response #3 Fee Transparency FY 2014 Fees by Manager.pdf

PSERS-001 Response #3 Fee Transparency FY 2015 Fees by Manager.pdf

PSERS-001 Response #3 Fee Transparency FY 2016 Fees by Manager.pdf
PSERS-001 Response #3 Fee Transparency FY 2017 Fees by Manager.pdf

PPMAIRC PSERS-001 1Q2017.pdf
PPMAIRC PSERS-001 2Q2017.pdf
PPMAIRC PSERS-001 4Q2016.pdf
PPMAIRC PSERS-001 3Q2016.pdf
PPMAIRC PSERS-001 2Q2016.pdf
PPMAIRC PSERS-001 1Q2016.pdf
PPMAIRC PSERS-001 4Q2015.pdf
PPMAIRC PSERS-001 3Q2015.pdf
PPMAIRC PSERS-001 2Q2015.pdf
PPMAIRC PSERS-001 1Q2015.pdf
PPMAIRC PSERS-001 4Q2014.pdf
PPMAIRC PSERS-001 3Q2014.pdf
PPMAIRC PSERS-001 2Q2014.pdf
PPMAIRC PSERS-001 1Q2014.pdf
PPMAIRC PSERS-001 4Q2013.pdf
PPMAIRC PSERS-001 3Q2013.pdf
PPMAIRC PSERS-001 2Q2013.pdf
PPMAIRC PSERS-001 1Q2013.pdf
PPMAIRC PSERS-001 4Q2012.pdf
PPMAIRC PSERS-001 3Q2012.pdf

See also:

PPMAIRC PSERS-001 #3 Investment Expenses Report FY 16-17 Educational – Primer – final (001).pptx
PPMAIRC PSERS-001 #3 Investment Expenses Report FY 16-17 Informative.pptx
PPMAIRC PSERS-001 #3 Deal-by-Deal vs Whole Fund Waterfalls (002).pptx
PPMAIRC PSERS-001 #3 Investment Expenses Report FY 16-17 - Final .pptx
PPMAIRC PSERS-001 #3 Investment Expenses Report FY 20142015 .pptx
PPMAIRC PSERS-001 #3 Investment Expenses Report FY 20132014 .pptx

Asset Allocation

4. For each investment manager, please provide a report of their original and current investment, date of original/subsequent investments, asset class, benchmark, and whether or not the investment is active or passive.

PSERS DOES NOT MAINTAIN A REPORT REFLECTING ORIGINAL AND CURRENT INVESTMENT, DATE OF ORIGINAL/SUBSEQUENT INVESTMENTS. SEE RESPONSE TO #3 FOR BENCHMARKS. THE FOLLOWING TABLE IDENTIFIES PASSIVE AND PASSIVE PLUS STRATEGIES.

<u>PASSIVE</u>	<u>PASSIVE PLUS</u>
PSERS US Long Treasuries	PSERS S&P 500 Index
PSERS Infrastructure Index	PSERS S&P 400 Index
PSERS Gold Fund	PSERS S&P 600 Index
PSERS REIT Index	PSERS World xUS
	PSERS Commodity Beta

Investment Performance within each asset class v. benchmark

5. Please provide quarterly performance reports from the past five years that provide detailed returns by the total system, asset class, and individual manager, each compared to their named benchmarks on both a gross and net basis for one, three, five, ten, and since inception periods.

PSERS HAS NOT CALCULATED GROSS OF FEE RETURNS HISTORICALLY AS THIS CALCULATION IS NOT USEFUL. NET OF FEE RETURNS ARE MORE VALUABLE FOR COMPARISONS WITH OTHER FUNDS. SEE RESPONSE TO #3 ABOVE FOR OTHER INFORMATION REQUESTED.

6. Please provide quarterly contribution/distribution reports and annual performance reports from all private market investment contracts entered into within the past five years.

See Files:

Final IRR Report.xlsx

VY 13-17 CFs.xlsx

General System Information

Please provide the following general information on the system:

7. Strategic plans / business plans / project plans, relevant to performance management / manager selection activities.

SEE PERFORMANCE POLICY, DRAFT EXTERNAL PORTFOLIO MANAGER FEE POLICY, DRAFT EXTERNAL MANAGER MONITORING POLICY, AND DRAFT EXTERNAL MANAGER UNDERWRITING POLICY WHICH ARE NEW INITIATIVES.

See files:

PPMAIRC PSERS-001 #7 Draft Investment Fee Policy.docx

PPMAIRC PSERS-001 #7 Investment Consultant Performance Reporting Policy.pdf

PPMAIRC PSERS-001 #7 Draft External Manager Monitoring Policy.docx

PPMAIRC PSERS-001 #7 Draft External Manager Underwriting Policy.docx

8. Enterprise architecture documentation, outlining technology / systems / data stores in use.

The information requested is considered highly secure information for the protection of PSERS data. The information could be easily used by malicious players to compromise PSERS operations and put the security of our data at extreme risk. Respectfully, PSERS will not be providing this information. The PSERS Chief Information Security Officer supports this decision.

However, PSERS will gladly meet with requesters to identify exactly what is needed to fulfill their mandate and we will provide that information under the same constraints of security risk and not providing inappropriate information to a third party not under non-disclosure, at a minimum.

7. A list of reports provided to the Board and to the public and what is included in each about asset allocation, risk allocation, performance attribution, manager level performance, liquidity and costs. **REPORTS REGULARLY PROVIDED TO THE BOARD AND PUBLIC THAT ADDRESS ONE OR MORE OF THESE TOPICS INCLUDE MONEYLINE, COMPREHENSIVE ANNUAL FINANCIAL REPORT (“CAFR”), BUDGET SUBMISSION, VARIOUS REPORTS FROM EACH INVESTMENT CONSULTANT, AND ANNUAL FEE PRESENTATION BY STAFF (RECENT YEARS PROVIDED). ADDITIONAL NON-REPETITIVE REPORTS ARE PROVIDED VIA PRESENTATIONS TO PSERS’ INVESTMENT COMMITTEE AND POSTINGS TO PSERS’ WEBSITE.**

Public Pension Management and Asset Investment Review Commission (PPMAIRC)

Data Request: PSERS-002

Date submitted: June 11, 2018

Date for response: June 20, 2018

1. How much of the Level 3 investments on the system's balance sheet are estimates of the unrealized value of those investments ? (amount and percentage)

See File PSERS-002 Response.pdf

Public Pension Management and Asset Investment Review Commission (PPMAIRC)

Data Request: PSERS-003

Date submitted: June 11, 2018

Date for response: June 20, 2018

Investment Costs

In order to identify potential areas for improvement of investment fees and costs within PA Plans, we kindly ask the Plans to provide answers to below questions through this self-assessment form. Where numbers or percentages are asked for, approximate answers should suffice if exact figures are not obtainable.

1. Management Fees

1.1. On a scale from 1-10, where do you think your management fees are placed in the market, by asset class, from "1" being the least competitive, to "10" most competitive, for similar sized investment? (1-10) **10**

1.1.1 If answer to 1.1. is above 7, please list opportunities, if any, for how you think terms could be further improved. (text) **WE REQUIRE ALL OUR INVESTMENT MANAGEMENT AGREEMENTS TO CONTAIN A MOST-FAVORED NATION CLAUSE ENSURING THAT WE GET THE BEST FEE ARRANGEMENT FOR THE AMOUNT OF ASSETS COMMITTED OR INVESTED. WE HAVE WORKED WITH SERS' INVESTMENT OFFICE PROFESSIONALS TO COMBINE OUR COMMITMENT LEVELS WHERE WE CAN TO GET BETTER ECONOMICS FOR EACH OF OUR FUNDS WHICH HAS PROVIDED SOME FEES SAVINGS. WE BELIEVE ANOTHER AREA WHERE SOME IMPROVEMENTS COULD BE MADE IS DRIVING A BETTER ALIGNMENT OF INTEREST, WITH LOWER BASE FEES (WHICH ARE GUARANTEED) AND HIGHER PROFIT SHARING FEES WHICH ARE ONLY EARNED IF THE MANAGER HAS GOOD PERFORMANCE.**

1.1.2. If answer to 1.1. is below 7, please list the three most relevant measures that have been instigated to improve upon terms. (text) **NOT APPLICABLE**

1.1.3. What do you think is the single biggest hurdle (per asset class, if different) why asset management terms cannot be further improved? (text) **TRADITIONAL ASSET CLASSES: THE TWO GREATEST IMPEDIMENTS ARE THE NEED FOR THE ACTIVE ASSET MANAGER TO HAVE A MINIMUM AMOUNT OF FEES TO COVER OVERHEAD OF THE BUSINESS, ESPECIALLY DURING YEARS WHERE PERFORMANCE MAY BE MORE CHALLENGED. SECONDLY, THE GENERATION OF EXCESS RETURNS IS NOT UNLIMITED AND THE ASSET MANAGERS HAVE TO LIMIT CAPACITY TO THEIR PRODUCT TO PROTECT THIS ALPHA GENERATING ABILITY. PRODUCTS WITH LIMITED CAPACITY WILL GENERALLY COMMAND HIGHER FEES.**

NON-TRADITIONAL ASSET CLASSES: THE SINGLE BIGGEST HURDLE IN THIS AREA, WHICH INCLUDES PRIVATE EQUITY AND HEDGE FUNDS, IS SUPPLY/DEMAND IMBALANCES. THERE IS A LIMITED SUPPLY OF INSTITUTIONAL QUALITY MANAGERS AND SIGNIFICANT DEMAND FOR THEIR

SERVICES. FOR EXAMPLE, WE'VE SEEN PRIVATE EQUITY FUND RAISES WHERE DEMAND OUTSTRIPPED THE FUND SIZE BY 3X. INVESTORS POSSESS LITTLE IF ANY NEGOTIATING POWER IN THESE CASES. THEORETICALLY, A MANAGER COULD INCREASE ITS FUND SIZE BY 3X AND REDUCE ITS FEE BY 2/3 TO ACCOMMODATE ALL INVESTOR DEMAND AND NOT CHARGE MORE IN FEES, BUT THERE ARE TWO REASONS WHY MANAGERS DO NOT DO THIS. ONE, MANAGERS ARE INCENTIVIZED TO MAXIMIZE PERFORMANCE AND TAKING ON TOO MUCH MONEY MAY MAKE THAT IMPOSSIBLE; AND, TWO, MANAGERS GENERALLY COMMIT SIGNIFICANT SUMS OF THEIR OWN MONEY INTO THE FUNDS AND DON'T WANT PERFORMANCE TO BE WATERED DOWN.

1.2. What is the average age of the fee schedules in your portfolio by asset class? *(number)* **WE DON'T TRACK THE AVERAGE AGE OF INVESTMENT MANDATES BY ASSET CLASS. ALL LIMITED PARTNERSHIP FEE ARRANGEMENTS ARE NEGOTIATED AT THE BEGINNING OF THE PARTNERSHIP AND WILL CONTINUE FOR THE LIFE OF THE PARTNERSHIP (10-12 YEARS FOR PRIVATE EQUITY AND PRIVATE REAL ESTATE; 5-8 YEARS FOR PRIVATE CREDIT). IN HEDGE FUNDS AND SEPARATE ACCOUNTS, WE HAVE RECENTLY RENEGOTIATED NUMEROUS AGREEMENTS.**

1.3. Whose responsibility is it to ensure that the investment costs are optimized? *(text)* **ULTIMATELY, THE CHIEF INVESTMENT OFFICER, WORKING IN CONJUNCTION WITH THE DEPUTY CIO'S AND OTHER INVESTMENT PROFESSIONALS THROUGH THE STAFF-LEVEL ASSET IMPLEMENTATION COMMITTEE.**

1.4. What does the Plan estimate as its total annual investment costs of the portfolio and per asset class and when was this calculation last made? *(number & % / year)* **WE DON'T MAKE SUCH ESTIMATES. IN 2017, 18% OF OUR TOTAL EXTERNAL MANAGEMENT FEES WERE PROFIT SHARING FEES WHICH WILL VARY SIGNIFICANTLY BASED ON THE SUCCESS OF THE ASSET MANAGER. HOWEVER, WE ARE IN THE PROCESS OF REVIEWING ALL OF OUR BASE MANAGEMENT FEES TO LOOK FOR POTENTIAL SAVINGS.**

2. Procurement Guidelines

2.1. Do you have procurement guidelines for asset management services in place? (Y/N) If yes, please provide a copy *(att.)* **NO.**

2.2. Could one person unilaterally sign off an investment management agreement? (Y/N) **NO. ALL INVESTMENT MANAGERS APPROVED FOR INCLUSION IN THE FUND ARE APPROVED BY THE STAFF PORTFOLIO MANAGER, THE ALLOCATION IMPLEMENTATION COMMITTEE (A COMMITTEE OF SENIOR INTERNAL INVESTMENT PROFESSIONALS), THE CHIEF INVESTMENT OFFICER, ONE BOARD CONSULTANT, AND THE BOARD ITSELF.**

2.3. Do you on a regular basis inquire with all of your managers about their capacity to accept new investments? (Y/N) **YES**

2.4. What is the average age of investment mandates in your portfolio by asset class? *(number)*
PSERS DOES NOT MAINTAIN THIS INFORMATION.

2.5. Does your Plan operate under a fee budget for investment managers? *(Y/N)* **NO**

2.6. What comes closest to how often you renegotiate your asset management agreements, every 3, 5, 7 or 9 years. *(tick one)* **DEPENDS UPON THE ASSET CLASS. FOR EXAMPLE, SEPARATE ACCOUNT AGREEMENTS ARE A MAXIMUM OF 5 YEARS IN LENGTH (PSERS' POLICY) AND SO PSERS HAS THE ABILITY TO ENGAGE IN RENEGOTIATIONS; IN THESE CASES, PSERS TYPICALLY REVIEWS EXISTING TERMS FOR POSSIBLE RENEGOTIATION EVERY 2.5 YEARS. PARTNERSHIP AGREEMENTS, ON THE OTHER HAND, AFFORD LIMITED PARTNERS VERY LITTLE ABILITY TO RENEGOTIATE FEES AFTER THE FUND HAS BEGUN OPERATIONS.**

2.7. Are employees of the Plan incentivized to factor in investment costs in the evaluation of an investment? *(Y/N)* If yes, how? *(text)* **PRIOR TO 2008, PSERS' INVESTMENT STAFF PARTICIPATED IN AN INCENTIVE PROGRAM WHERE COST CONTAINMENT WAS A FACTOR CONSIDERED. WHILE THIS INCENTIVE NO LONGER EXISTS, STAFF DO CONSIDER NET OF FEE PERFORMANCE ALONG WITH OTHER FACTORS (RISK, LIQUIDITY, ETC) IN EVALUATION OF EXISTING AND PROSPECTIVE MANAGERS.**

2.8. In negotiating investment costs, does the Plan have a process for determining the best alternative to the investment under consideration? *(Y/N)* **YES.**

3. Potential Conflicts of Interest

3.1. What percentage of your asset managers have confirmed in writing that they don't receive commissions, rebates, retrocessions and the likes associated with your investment? **PSERS DOES NOT MAINTAIN THIS INFORMATION.**

3.1.1. for the last calendar year *(%)* **PSERS DOES NOT MAINTAIN THIS INFORMATION.**

3.1.2. since inception of the investment *(%)* **PSERS DOES NOT MAINTAIN THIS INFORMATION.**

3.2. What percentage of your asset managers have confirmed in writing that they don't pay and have not paid any commissions, introduction fees or the likes associated with your investments? *(%)* **PSERS DOES NOT MAINTAIN THIS INFORMATION.**

3.3. Do your brokers, or those of your managers, make use of bundled brokerage? *(Y/N/na)* **YES, IN SOME CASES.**

3.4. Most investors use benchmarks for internally monitoring and externally reporting the performance of each investment. In the case of investments which have performance-based compensation structures, benchmarks are also used to measure the performance for fee calculation purposes. For each of your investments, are the benchmarks used for the Fund's monitoring and reporting identical to the benchmarks used for the investment fee calculations?

(Y/N) IT DEPENDS. FOR TRADITIONAL ASSET CLASSES, THE ANSWER IS GENERALLY YES. FOR NON-TRADITIONAL ASSET CLASSES SUCH AS PRIVATE EQUITY, PRIVATE REAL ESTATE, AND PRIVATE CREDIT, THE ANSWER IS GENERALLY NO AS THE BENCHMARKS USED ARE FIXED PREFERRED RETURNS.

1. Custodians / Brokers

1.1. Do you have prime broker agreements in place? (Y/N) TWO PRIME BROKER AGREEMENTS WERE NEGOTIATED SEVERAL YEARS AGO FOR USE BY SPECIFIC EXTERNAL INVESTMENT MANAGERS; THE PRIME BROKER RELATIONSHIPS ARE DORMANT AS THE STRATEGIES ARE NO LONGER ACTIVE, HOWEVER THE AGREEMENTS WERE LEFT OPEN IN CASE AN APPROPRIATE STRATEGY IS IDENTIFIED IN THE FUTURE.

1.2. Do you perform centralized FX hedging? (Y/N) YES, BUT NOT IN ALL CASES. SOME INVESTMENT MANAGERS/PARTNERSHIPS PERFORM FX HEDGING INTERNALLY AS IT IS INTEGRAL TO THEIR STRATEGIES AND/OR THEY HAVE DEMONSTRATED EXPERTISE. BASED ON CURRENCY EXPOSURES, PSERS GENERALLY PERFORMS CENTRAL HEDGING IN CASES WHERE INVESTMENT MANAGERS DO NOT DO SO.

1.3. Are you conducting regular transaction cost analyses on equities, fixed income and FX? (Y/N) NO; PSERS HAS USED PROVIDERS IN THE PAST AND FOUND THEY DID NOT ADD VALUABLE INSIGHTS. AS NET OF FEE RETURNS TAKE INTO ACCOUNT TRADING COSTS, WE ARE MONITORING THROUGH THE PERFORMANCE OF THE MANAGER VS THEIR BENCHMARK.

1.4. Do you have securities lending in place? If so what is the split you've agreed upon? (Y/N/%) YES; 90% TO PSERS AND 10% TO THE SECURITIES LENDING AGENT