

# COURTLAND PARTNERS, LTD.

## INSTITUTIONAL REAL ESTATE SERVICES

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July 21, 2015

Mr. James Grossman  
Chief Investment Officer  
Pennsylvania Public School Employees' Retirement System  
5 North 5<sup>th</sup> Street  
Harrisburg, PA 17101

### **Re: Modification of Real Estate Benchmark**

Dear Mr. Grossman:

Courtland Partners, Ltd. ("Courtland") has worked closely with PSERS Investment Staff ("Staff") to assist in its review of PSERS Real Estate Benchmark. As a part of our consulting services to our institutional clients, Courtland periodically reviews benchmarking as that is an area that continues to evolve.

PSERS currently has benchmarks for different types of private investments within its real estate portfolio that include the use of the NCREIF Closed End Value-Add Index (NFI-CEVA). The Closed-end Funds, Pooled Funds, PSERS Internal Programs, Total Private Real Estate, and Total Portfolio benchmarks all currently use NFI-CEVA in their respective calculations.

The nature of non-core benchmarks is very fluid; therefore Staff and Courtland collectively decided to review the universe of options to determine the most appropriate fit for PSERS. A number of legitimate options for benchmarking non-core private real estate investment performance have emerged as viable. In the course of our collaborative due diligence on this issue, Staff and Courtland considered alternatives including Burgiss Private iQ ("Private iQ"), Cambridge Associates, the Courtland Partners Index, Partners Group/Thomson One, and PREQIN.

After a thorough review of all available non-core benchmarking options, it is Courtland's opinion that the non-core, private real estate dataset created and maintained by Burgiss Private iQ is the most appropriate in the market today. Private iQ is superior to other market options given the depth, breadth, and integrity of the available data and the flexibility and usefulness of the technology. Notably, Courtland has recommended switching to Private iQ to other clients recently.

PSERS would use the median vintage year returns provided by Private iQ weighted by vintage year in its various benchmark calculations. We believe that this would create an appropriate benchmarking tool.

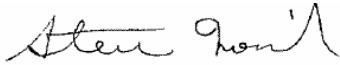
Given this recommendation, it is important to highlight a number of concerns that exist with all non-core real estate benchmarks, including the facts that:

- As yet, there is no universally accepted methodology for benchmarking the performance of private, non-core real estate investments;
- As yet, there is no non-core real estate benchmark that perfectly satisfies the criteria prescribed by certain financial industry standards (i.e., benchmarks should be investable, unambiguous, specified in advance, relevant, et al.); and,
- Any fund-based database may be an imperfect reflection of PSERS' non-core investment activity.

Staff is recommending that PSERS replace the NFI-CEVA with Burgiss Private iQ in each applicable benchmark. Courtland agrees with this recommendation and would be happy to assist in the transition.

Please let us know if you have any further comments or questions in regards to this memo.

Sincerely,



Steven Novick  
Principal-Chief Operating Officer

**COURTLAND PARTNERS, LTD.**

ownership, significant personnel changes and substantial deviation from their investment style.

### **~~Interest, Dividend, and Other Miscellaneous Income Earned~~**

~~Interest, dividend, and other miscellaneous income earned each month by the Investment Manager will be swept ("Income Sweep") from each account one month and one business day after the month in which it was earned (for example, income earned in December will be swept from the accounts on the first business day in February). The amount to be swept as determined by the Custodian Bank monthly through the reconciliation process between the Custodian Bank and/or the System is reviewed and approved by IA. The Investment Managers shall be responsible for having sufficient cash available to meet the Income Sweep requirements. The CIO has discretion to waive this provision for any Investment Manager.~~

### **Investment Management Fees**

Invoices for investment management fees shall be submitted to the System by each External Portfolio Manager on a quarterly basis. Fees will be paid out of the External Portfolio Manager's account as administered by IA. External Portfolio Managers are responsible for having sufficient cash available to cover the amount of the quarterly investment management fee. The CIO, or the DCIO in the CIO's absence, shall have discretion to waive this provision for any External Portfolio Manager. On a quarterly basis, IA will prepare a report of investment management fees to be posted on the Board's secure intranet web site.

### **Brokerage Commissions**

#### *Equity Investment Managers*

Brokerage commissions are a plan asset and, as such, shall be monitored by the System. The Investment Managers are obligated to seek best execution on all trades.

Investment Managers trading U.S. equities shall be required to execute trades through the System's Trading Desk unless otherwise approved by the CIO or the DCIO in the CIO's absence.

U.S. equity Investment Managers not trading through the System's Trading Desk and non-U.S. equity Investment Managers shall be required to participate in the System's commission recapture program. The System has retained a Commission Recapture Agent to manage this program and the Investment Managers are required to send monthly reports to the Commission Recapture Agent indicating the commissions directed to each broker, including non-designated brokers. Best efforts must be made to execute trades through commission recapture brokers for initial and subsequent fundings and partial liquidations. **All commissions generated through the System's approved commission recapture brokers are considered to be directed trades and should be so communicated by the Investment Manager to the broker.**

## Exhibit D – Policy Index

The Board adopts the following weighted policy benchmarks to measure the performance of the System beginning October 1, 2015, subject to footnotes 1 & 4:

	<u>Policy Weight</u>	
<b>Equity Exposure</b>		
<b>Publicly-traded Global Equity</b>		
MSCI USA IMI Gross Index	8.80% <sup>1</sup>	
MSCI ACWI Ex USA IMI with Developed Market Currencies hedged to USD Net Index	13.20%	
MSCI Emerging Markets Equity Index	0.50%	
<b>Private Markets</b>		
<del>Thomson ONE</del> <u>Burgiss</u> Median, one-quarter lagged <sup>2</sup>	15.00% <sup>1</sup>	
<b>Total Equity Exposure</b>		<b>37.50%</b>
<b>Fixed Income Exposure</b>		
<b>Investment Grade</b>		
Barclays Capital U.S. Aggregate Index	5.00%	
Barclays Capital Global Aggregated GDP-weighted Developed Market ex-U.S. (hedged) Index	1.00%	
Barclays Capital U.S. Aggregate Long Treasury Index	2.50%	
<b>Credit-Related</b>		
Barclays Capital EM Local Currency - Government - MV Weighted (Unhedged) - 10% Country Cap Index	2.00%	
Barclays Capital U.S. High Yield Index	6.00%	
<b>Inflation Protected</b>		
<u>Barclays Capital U.S. TIPS Index (Series-L)World Government Inflation-Linked Bond Index (Hedged to USD)</u>	12.00%	
<b>Total Fixed Income Exposure</b>		<b>28.50%</b>
<b>Real Asset Exposure</b>		
<b>Master Limited Partnerships/Infrastructure</b>		
S&P MLP Index	4.00%	
INFRASTRUCTURE INDEX TO BE DETERMINED	1.00%	
<b>Commodities</b>		
Bloomberg Commodity Index	5.00%	
Bloomberg Commodity Gold Subindex	3.00%	
<b>Private Real Estate</b>		
<u>NFI and Burgiss</u> Median, allocation-weighted, one-quarter lagged <sup>3</sup>	12.00% <sup>4</sup>	
<b>Publicly-traded Real Estate</b>		
FTSE EPRA/NAREIT Developed Index	0.00% <sup>4</sup>	
<b>Total Real Asset Exposure</b>		<b>25.00%</b>

<b>Risk Parity</b>		
Custom Benchmark <sup>5</sup>		10.00%
<b>Absolute Return</b>		
3-Month LIBOR + 3.50%		10.00%
<b>Net Leverage</b>		
Cash		
Merrill Lynch U.S. Treasury Bill 0 - 3 Months	3.00%	
<b>Financing Cost of Leverage<sup>6</sup></b>		
3-Month LIBOR	(14.00%)	
<b>Net Leverage</b>		<u>(11.00%)</u>
<b>TOTAL</b>		<u><u>100.00%</u></u>

<sup>1</sup> As the Private Markets allocation is funded (or distributions received) and/or the allocation increases/decreases due to the total market value of the Fund changing, the Publicly-traded Global Equity policy weight (specifically, the combination of MSCI USA IMI Gross Index and MSCI ACWI Ex USA IMI with Developed Market Currencies hedged to USD Index policy weights) will be proportionately and conversely revised to reflect these changes using a 60-40 split between the ex. USA (60%) and USA (40%) indices. For example, if the allocation to Private Markets increases by 100 basis points due to a change in the market value of the total Fund in the fourth quarter, then starting with the first quarter the policy weight will include this 100 basis points increase in the Private Markets benchmark and the Publicly-traded Global Equity policy weights will also be proportionately reduced by 100 basis points. Adjustments to the Private Markets policy weight will be completed in 50 basis point increments (adjustment will be made to the nearest 0.50%) on a quarterly basis.

<sup>2</sup> The Thomson-ONEBurgiss Median returns will be calculated on a weighted vintage year basis that will account for the timing of commitments made by the System.

<sup>3</sup> PSERS weights each of the real estate investment strategies net, value-weighted NFI sub-indices (Open-End Diversified Core Equity (NFI-ODCE) and Closed-End Value-Added (NFI-CEVA)) against the actual net asset values of the System's private real estate investments quarterly to produce a customized, blended benchmark return. The NFI-ODCE (NCREIF Open-end Diversified Core Equity) is used for the core strategy and the Burgiss Median returns for value-added and opportunistic strategies are calculated on a weighted vintage year basis that accounts for the timing of commitments made by the System. NFI-CEVA index will also be used to benchmark the System's opportunistic real estate investments (change for opportunistic real estate investments effective for the March 31, 2014 quarter end). This provides a single Real Estate policy benchmark return for the System.

<sup>4</sup> As the Private Real Estate allocation is funded (or distributions received) and/or the allocation increases/decreases due to the total market value of the Fund changing, the Publicly-traded Real Estate policy weight will be proportionately and conversely revised to reflect these changes. For example, if the allocation to Private Real Estate increases by 100 basis points due to a change in the market value of the total Fund in the fourth quarter, then starting with the first quarter the policy weight will include this 100 basis points increase in the Private Real Estate benchmark and the Publicly-traded Real Estate policy weight will also be proportionately reduced by 100 basis points. Adjustments to the Private Real Estate policy weight will be completed in 50 basis point increments (adjustment will be made to the nearest 0.50%) on a quarterly basis.

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<b>Private Markets</b>		
Burgiss Median, one-quarter lagged <sup>2</sup>	15.00% <sup>1</sup>	
<b>Total Equity Exposure</b>		<b>37.50%</b>
<b>Fixed Income Exposure</b>		
<b>Investment Grade</b>		
Barclays Capital U.S. Aggregate Index	5.00%	
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<b>Credit-Related</b>		
Barclays Capital EM Local Currency - Government - MV Weighted (Unhedged) - 10% Country Cap Index	2.00%	
Barclays Capital U.S. High Yield Index	6.00%	
<b>Inflation Protected</b>		
Barclays Capital World Government Inflation-Linked Bond Index (Hedged to USD)	12.00%	
<b>Total Fixed Income Exposure</b>		<b>28.50%</b>
<b>Real Asset Exposure</b>		
<b>Master Limited Partnerships/Infrastructure</b>		
S&P MLP Index	4.00%	
INFRASTRUCTURE INDEX TO BE DETERMINED	1.00%	
<b>Commodities</b>		
Bloomberg Commodity Index	5.00%	
Bloomberg Commodity Gold Subindex	3.00%	
<b>Private Real Estate</b>		
NFI and Burgiss Median, one-quarter lagged <sup>3</sup>	12.00% <sup>4</sup>	
<b>Publicly-traded Real Estate</b>		
FTSE EPRA/NAREIT Developed Index	0.00% <sup>4</sup>	
<b>Total Real Asset Exposure</b>		<b>25.00%</b>

**Risk Parity**

Custom Benchmark <sup>5</sup>	10.00%
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**Absolute Return**

3-Month LIBOR + 3.50%	10.00%
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**Net Leverage****Cash**

Merrill Lynch U.S. Treasury Bill 0 - 3 Months	3.00%
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**Financing Cost of Leverage<sup>6</sup>**

3-Month LIBOR	(14.00%)
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<b>Net Leverage</b>	<b>(11.00%)</b>
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<b>TOTAL</b>	<b><u>100.00%</u></b>
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<sup>1</sup> As the Private Markets allocation is funded (or distributions received) and/or the allocation increases/decreases due to the total market value of the Fund changing, the Publicly-traded Global Equity policy weight (specifically, the combination of MSCI USA IMI Gross Index and MSCI ACWI Ex USA IMI with Developed Market Currencies hedged to USD Index policy weights) will be proportionately and conversely revised to reflect these changes using a 60-40 split between the ex. USA (60%) and USA (40%) indices. For example, if the allocation to Private Markets increases by 100 basis points due to a change in the market value of the total Fund in the fourth quarter, then starting with the first quarter the policy weight will include this 100 basis points increase in the Private Markets benchmark and the Publicly-traded Global Equity policy weights will also be proportionately reduced by 100 basis points. Adjustments to the Private Markets policy weight will be completed in 50 basis point increments (adjustment will be made to the nearest 0.50%) on a quarterly basis.

<sup>2</sup> The Burgiss Median returns will be calculated on a weighted vintage year basis that will account for the timing of commitments made by the System.

<sup>3</sup> PSERS weights each of the real estate investment strategies' actual net asset values of the System's private real estate investments quarterly to produce a customized, blended benchmark return. The NFI-ODCE (NCREIF Open-end Diversified Core Equity) is used for the core strategy and the Burgiss Median returns for value-added and opportunistic strategies are calculated on a weighted vintage year basis that accounts for the timing of commitments made by the System. This provides a single Real Estate policy benchmark return for the System.

<sup>4</sup> As the Private Real Estate allocation is funded (or distributions received) and/or the allocation increases/decreases due to the total market value of the Fund changing, the Publicly-traded Real Estate policy weight will be proportionately and conversely revised to reflect these changes. For example, if the allocation to Private Real Estate increases by 100 basis points due to a change in the market value of the total Fund in the fourth quarter, then starting with the first quarter the policy weight will include this 100 basis points increase in the Private Real Estate benchmark and the Publicly-traded Real Estate policy weight will also be proportionately reduced by 100 basis points. Adjustments to the Private Real Estate policy weight will be completed in 50 basis point increments (adjustment will be made to the nearest 0.50%) on a quarterly basis.

<sup>5</sup> Custom benchmark is structure as follows: MSCI ACWI (\$Net) (50%); Barclays Capital U.S. Treasury Index (75%); Barclays Capital World Inflation Linked Bond Index Hedged (55%); Bloomberg Commodity Index (Total Return) (15%); Bloomberg Gold Subindex (5%); and 3-Month LIBOR (-100%).

<sup>6</sup> Financing Cost of Leverage represents the amount of leverage embedded in the asset allocation. Financing may be deployed across any asset class in the portfolio where it is prudent to do so, based on efficient use of leverage within the constraints of the policy range and maximum net leverage permissible under this Policy.