The Arizona State Retirement System (ASRS) Investment Committee (IC) met in the 14th Floor Conference Room of the ASRS Office, 3300 N. Central Avenue, Phoenix, Arizona 85012.

Mr. Clark Partridge, Chair of the IC, called the meeting to order at 1:34 p.m.

The meeting was teleconferenced to the ASRS office at 4400 E. Broadway Boulevard, Suite 200, Tucson, Arizona 85711.

1. Call to Order; Roll Call; Opening Remarks

Present: Mr. Clark Partridge, Chair
          Mr. Jim Hillyard, Vice-chair (arrived at 2:50 p.m.)

Excused: Mr. Michael Lofton

When the meeting was called to order, a quorum was not present for the purpose of conducting business; therefore, the order of the agenda was modified until such time that a quorum was present and the Board was able to consider action items.

2. Approval of the Minutes of the December 14, 2018 Public Meeting of the ASRS IC.

This item was postponed until a quorum was present.

3. Presentation, Discussion, and Appropriate Action Regarding Portfolio Positioning, House Views and General Discussion

Mr. Karl Polen, Chief Investment Officer (CIO), noted that views and positioning remain unchanged from the last report. The ASRS continues to be slightly underweight equities and core fixed income and carrying 2% to 3% of the portfolio in cash. Mr. Eric Glass, Sr. Portfolio Manager of Private Markets, noted that equity valuations and late cycle dynamics warrant the underweight in equities. Mr. Al Alaimo, Sr. Portfolio Manager of Fixed Income, Cash, and Liquid Alternatives, noted that low expected rates in core bonds and a flat yield curve make cash an attractive near term asset. Private credit markets remain attractive and the current focus is on pursuing strategies with low cyclical exposure. Real estate markets remain generally healthy and robustly valued leading to highly selective deployment.
4. Presentation, Discussion, and Appropriate Action Regarding Investment Performance

Mr. Polen reviewed total fund performance noting the following:
- Fiscal year-to-date returns of around 2.5% exceed their benchmark by 1.5%
- Returns for the one, three, five and ten year periods were -0.6%, 7.6%, 6.0% and 9.7% respectively
- These returns exceeded their benchmark by over 1% per year over the ten years including approximately 2% during the most recent year
- ASRS returns place it in the top decile of public pension plans for all of the time periods reported

Mr. Glass reviewed equity and real estate performance noting the following:
- Equity returns were 1.1% better than benchmark for the one-year period, 0.6% below benchmark for the three-year period, and flat for the five-year period
- Private equity exceeded its benchmark for the reporting periods
- Public equity trailed due to index selection, active management and allocation effects. The active management program has since been terminated
- Real estate performance has exceeded its benchmark by 1% to 2% for all reporting periods. The strongest performance is with separate accounts and operating companies with 14% and 19% inception returns respectively

Mr. Alaimo reported on credit and interest rate sensitive asset classes noting the following:
- Credit returns exceeded their benchmark by 2.3%, 0.9% and 2.7% for the one, three and five-year periods respectively
- Private debt was the strongest category with returns consistently at 11%
- Core fixed income exceeded its benchmarks by 6bp, 40bp and 27bp for the one, three and five year periods respectively

5. Presentation, Discussion, and Appropriate Action Regarding the Equity Implementation Plan

Mr. Glass presented the equity implementation plan outlining the excess return generating “levers” envisioned by the plan. The return generating levers are summarized in the below table:

<table>
<thead>
<tr>
<th>Lever</th>
<th>Expected Outperformance (bps)</th>
<th>Expected Tracking Error (bps)</th>
<th>Information Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benchmark Implementation</td>
<td>10</td>
<td>10</td>
<td>1.00</td>
</tr>
<tr>
<td>Internal Portfolios</td>
<td>10</td>
<td>5</td>
<td>2.00</td>
</tr>
<tr>
<td>Securities Lending</td>
<td>3</td>
<td>0</td>
<td>n/a</td>
</tr>
<tr>
<td>Factor Portfolios</td>
<td>150</td>
<td>450</td>
<td>0.33</td>
</tr>
<tr>
<td>Alpha Overlay</td>
<td>350</td>
<td>970</td>
<td>0.36</td>
</tr>
<tr>
<td>Private Equity</td>
<td>150</td>
<td>600</td>
<td>0.25</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>300</td>
<td>0.33</td>
</tr>
</tbody>
</table>
6. Presentation, Discussion, and Appropriate Action Regarding Independent Reporting, Monitoring and Oversight

Mr. John Krimmel presented the independent monitoring report on behalf of NEPC. He noted the status of the following board-adopted goals as follows:

a) Develop, approve and implement an Asset Allocation program that is expected to achieve a 20-year rolling average annual rate of return at or above the actuarial assumed rate  
   *Goal met: Yes*

b) Achieve a total fund net return in the top quartile of the peer universe  
   *Goal met: Yes*

c) Achieve a one-year total fund net return greater than the Strategic Asset Allocation Benchmark  
   *Goal met: Yes*

d) Achieve a three-year total fund net return greater than the Strategic Asset Allocation Benchmark  
   *Goal met: Yes*

e) Achieve a one-year asset class net return greater than the respective Asset Allocation Benchmark  
   *Goal met: Yes*

f) Achieve a three-year asset class net return greater than the respective Asset Allocation Benchmark  
   *Goal met: Yes*

g) Sufficient cash will be maintained to meet all payment requirements  
   *Goal met: Yes*

*Board adopted wording has been modified for clarity.*

Mr. Krimmel further noted that NEPC monitors all asset class committee meetings and that all investment decisions have been made in accordance with applicable rules and procedures.

7. Presentation, Discussion, and Appropriate Action Regarding Risk Management

Mr. Polen presented the risk report noting that MSCI risk modeling finds the risk of the plan to be in line with strategic asset allocation expectations.

8. Presentation, Discussion, and Appropriate Action Regarding Compliance

Ms. Kerry White presented the compliance noting that there are no unresolved compliance matters.

9. Approval of the Minutes of the December 14, 2018 Public Meeting of the ASRS IC (Agenda Item#2)

Mr. Jim Hillyard moved to approve the minutes of the December 14, 2018 Investment Committee Public Meeting and Executive Session. Mr. Clark Partridge seconded the motion.

By a vote of 2 in favor, 0 opposed, 0 abstentions, 1 excused and 0 vacancies, the motion was approved. The trustee votes were as follows:

- Mr. Clark Partridge – approved
- Mr. Jim Hillyard – approved
- Mr. Michael Lofton – excused
10. Request for future agenda items

There were no requests for future agenda items.

11. Call to the Public

No members of the public requested to speak.

12. The next ASRS Investment Committee Meeting is scheduled for Monday, June 17, 2019 at 1:30 p.m. at 3300 N. Central Avenue, 14th Floor Conference Room, Phoenix, Arizona

Mr. Partridge noted the next IC meeting is scheduled for Monday, June 17 at 1:30 p.m.

13. Adjournment of the ASRS IC Meeting

Motion: Mr. Jim Hillyard moved to adjourn the meeting at 2:59 p.m. Mr. Clark Partridge seconded the motion.

By a vote of 2 in favor, 0 opposed, 0 abstentions, 1 excused and 1 vacancies, the motion was approved. The trustee votes were as follows:

- Mr. Clark Partridge – approved
- Mr. Jim Hillyard – approved
- Mr. Michael Lofton – excused

Respectfully submitted by:

Joyce Williams/Karl Polen
Investment Committee Administrator/Chief Investment Officer
ARIZONA STATE RETIREMENT SYSTEM