

**MINUTES OF A PUBLIC MEETING
OF THE ARIZONA STATE RETIREMENT SYSTEM
INVESTMENT COMMITTEE**

**Monday, February 28, 2022
1:30 p.m. Arizona Time**

A quorum of the Investment Committee (IC) of the Arizona State Retirement System (ASRS) met in public session telephonically, with some attending in-person, in the 14th Floor Conference Room of the ASRS Office, 3300 N. Central Avenue, Phoenix, Arizona 85012.

Mr. Kevin McCarthy, Acting Chair of the Investment Committee, called the meeting to order at 1:33 p.m.

1. Call to Order; Roll Call; Opening Remarks

Present: Mr. Kevin McCarthy, Acting Chair – via teleconference
Ms. Diane Landis
Mr. Jim Mueller

Excused: Mr. Michael Lofton, Chair

A quorum of the IC was present to conduct business.

Ms. Bridget French, ASRS IC Administrator, provided all attendees with telephonic meeting guidelines.

2. Approval of the Minutes of November 8, 2021, Public Meeting of the ASRS Investment Committee

Motion: Ms. Diane Landis moved to approve the minutes of the November 8, 2021, public Investment Committee meeting. Mr. Jim Mueller seconded the motion.

By a roll call vote of 3 in favor, 0 opposed, 0 abstentions, 1 excused, and 0 vacancies, the motion was approved. The trustee votes were as follows:

Mr. Michael Lofton - excused
Mr. Kevin McCarthy – approved
Ms. Diane Landis – approved
Mr. Jim Mueller – approved

3. Presentation, Discussion, and Appropriate Action Regarding Market Environment and Outlook: NEPC

Mr. Paul Matson, the ASRS Director, introduced Mr. Allan Martin, Senior Consultant with NEPC.

Mr. Martin opened his presentation by stating that today's market is more complicated with many more asset classes to worry about. He explained that ASRS maintain control of managers and decision while the Board maintains oversight and control. NEPC's role is to give the Board oversight of the process.

Ms. Diane Landis, Trustee, asked if the Committee has questions about allocations or figures, who should be the point of contact. Mr. Matson states that he is the first contact, but the Board Trustees can call Mr. Martin. Mr. Viteri commented that Mr. Matson is an excellent investment resource as he is a former Chief Investment Officer.

Mr. Viteri turned the presentation over to Mr. Chris Levell.

Mr. Levell, a Senior Consultant at NEPC, presented an outside analysis of the market environment and outlook. Mr. Levell stated, across the board, there is a healthy environment and economic growth, lower unemployment, and high housing prices.

Mr. Levell presented information about the outperformance of risk assets and highlighted the following:

- Most risk assets outperformed except for MSCI EM, which are emerging markets.
- 2021 China clamped down on large companies which caused a negative return across all emerging markets for the year.
- The U.S. equity market in 2021 is in the top 15 returns of the S&P 500.
- The lowest inflation period in the top 10 annual U.S. CPI-U Changes was 1990.
- The U.S. dollar strengthened during the year, and with war and conflict, you will also see the dollar strengthening in those environments.
- It was expected that the Federal Reserve would have two rate hikes for 2022. The expected rate hikes have increased, with some estimates at seven potential increases.
- The Economic Crossroads theme is a new theme that replaces Virus Trajectory not because the virus is over; however, the economic impact of the virus has lessened.

Mr. Jim Mueller, asked whether you would move the market theme of Globalization Backlash as of today to something other than neutral. Mr. Levell stated that he believes he and his colleagues would move it up to Prevalent with the actions in Ukraine.

Mr. Levell discussed the rising inflation levels. NEPC's view on inflation is a near-term phenomenon that can persist in the 1-5 year time frame and their 10-year view is unchanged. Mr. Levell provided a discussion on potential scenarios for the implementation of interest rate hikes.

Mr. Mueller asked if NEPC does not think stagflation is the most likely scenario, what is? Mr. Levell stated that because our long-term view is that inflation is transitory, an inflation "reset" is more likely than going into recession. Mr. Martin noted the potential for higher inflation than expected is high and can put us in a typical environment for a recession.

Ms. Landis asked why demographics are considered deflationary pressures. Mr. Levell explained the baby boom had been a big part of the economy, and as they moved through different phases of their lives, they were spending more during their middle years. They are now retired, and there is a reduction in spending, and that is a trend in the U.S. and in countries with older demographics. The more populous share of retirees tend to reduce prices and reduce spending over time.

Mr. Samer Ghaddar, Deputy CIO, provided house views to the Trustees on Public Equity. As of December 31, 2021, the ASRS had \$21.9 billion invested in the Public Equity asset class, representing 41.6% allocation of the total fund. Mr. Ghaddar reviewed the respective charts related to private equities and provided commentary in addition to responding to questions.

Mr. Ghaddar provided house views to the Trustees on Private Equity Market conditions. Total Private Equity uncalled capital is at an all-time high and stands at ~2,298 billion. As of February 7, 2022, ASRS had \$5.8 billion invested in the Private Equity asset class representing an 11.4% allocation. Overall Implication for ASRS: Private Equity team is very selective in making commitments.

Mr. Al Alaimo, Deputy CIO, provided house views to the Trustees on private equities relating to the credit and interest-rate sensitive asset class. Mr. Alaimo stated that as of January 31, 2021, the ASRS had \$11 billion dollars invested in the credit asset class: essentially 100% in private credit strategies. The ASRS has found the most attractive opportunities in private credit in terms of expected return and lower volatility.

The ASRS is allocated across 25-30 partnerships, of which 18-19 are active and are primarily in fund-to-one partnerships where the ASRS has better economic terms and can control the fund's liquidation. The ASRS adds new managers over time. The ASRS works hard to get the lowest fee structure possible for their size fund. Mr. Alaimo discussed more about fee structures and contract clauses.

Mr. Alaimo stated that roughly 70% of the money the ASRS has invested is private debt. Mr. Alaimo discussed the regulatory framework for banks and how that affects transactions and private debt.

Mr. Alaimo explained that the ASRS has two other asset classes: distressed debt and other credit. Distressed debt originated from another lender that is in default, and the lender will send the loan to a third party at a discount and will work through a bankruptcy or restructuring process. Other credit asset classes are a catch-all and tend to be niche areas like litigation finance and European risk-sharing transactions. Mr. Alaimo presented that private debt is about 70% of ASRS' allocation of funds. Just over 60% is U.S. corporate lending which is structured so ASRS lenders would be first in line for repayment if loans default.

Mr. Alaimo presented information on interest rate sensitive allocations. This is an asset class of U.S. Fixed Income Grade Market and is mostly U.S. Treasuries, Agency Mortgage Backed Securities, U.S. Investment Grade Corporates anything above BBB and above.

Mr. Viteri introduced Mr. Micheal Copeland, Private Markets Portfolio Manager, who presented on the ASRS real estate investments. Mr. Copeland stated that the bulk of the real estate portfolio is in 18 separately managed accounts, which the ASRS has control over. The real estate portfolio currently runs at \$8.5 billion, about 17% of the total fund. More than 70% of it is in fund-to-one structures. The ASRS consultant, RCLCO, performs due diligence on every single purchase.

Mr. Mueller asked about what type of real estate the ASRS prefers to invest in. In response, Mr. Copeland explained that there are 16-18 different property types. The ASRS breaks it down into three categories: where people live, shop, and work. The ASRS real estate portfolio is 50%

residential: apartments, senior housing, student housing, and single-family residential rental communities. Multi-family properties are the most significant component of the ASRS real estate portfolio, and the ASRS is involved in both development and acquisitions. The ASRS is underwriting 30-50% mark-to-market rents in the Industrial area. In the U.S. office real estate, office utilization is 30-35% because more people are teleworking.

Mr. Matson, Mr. Copeland, and Mr. Viteri discussed the potential sale with our partners of the green space parcel next to the ASRS building for multi-family units.

4. Presentation, Discussion, and Appropriate Action Regarding Independent Reporting, Monitoring, and Oversight

Mr. Matson turned the presentation over to Mr. Martin, who presented the NEPC oversight for the period ending December 31, 2021.

Mr. Martin highlighted the goals that the ASRS has fully or partially met:

- an Asset Allocation program that is expected to achieve a 20 year rolling average annual return at or above the actuarially assumed return
- achieve a total fund net return in the top quartile amongst peers
- achieve a one and three-year total fund net return greater than the Strategic Asset Allocation Benchmark
- achieve one and three-year asset class net return greater than the respective Asset Allocation Benchmarks
- have sufficient cash to maintain all payment requirements

Mr. Martin discussed that the compliance review shows that the portfolio operates as planned.

There are three drivers of ASRS outperformance: private equity, private debt, and real estate. Mr. Martin believes that governance strength is the key to the ASRS' success. Current ASRS positioning is consistent with the house views and strategic implementation plans.

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

Mr. Matson introduced Mr. Robert Butler, Investment Risk and Compliance Officer. Mr. Butler is an ASRS staff member and he works 90% of his time with the Investment Management Division and reports directly to Mr. Matson. Mr. Butler is also the project manager of our investment offerings to our participants for the defined contribution plans.

Mr. Butler opened his presentation and provided insight into the ASRS Risk Philosophy, compiled from various documents. One of the ASRS' goals, as documented in the Investment Policy Statement, is to maximize the fund rate of return for acceptable fund risk levels. The second is to mitigate contribution rate volatility. Mr. Butler discussed the definition of risk, returns, and volatility.

Mr. Mueller asked if the ASRS makes any investments to compensate for volatility. Mr. Butler explained that the ASRS' interest rate-sensitive portfolio helps lower the portfolio's volatility. Mr. Viteri discussed that there is no risk mitigation such as portfolio insurance, but the implementation the ASRS has in place in real estate and private credit lowers the volatility. Mr.

Matson pointed out that the ASRS' 2% real cash position is an active risk mitigator. The house view is not to buy long-term risk mitigators with low expected return rates just to offset. The ASRS can absorb the risk through periods of time and accrue a higher rate of return.

Mr. Butler explained that the way one calculates the asset class volatility contribution is the asset class weight, times the stand-alone volatility, and considers the correlation of the total plan. The ASRS is much more diversified than a typical 60% global stocks and 40% fixed income portfolio, which lowers its volatility as does the added asset classes.

Mr. Butler presented hypothetical investment situations and outcomes with the ASRS portfolio.

6. Presentation, Discussion, and Appropriate Action Regarding Investment Compliance

Mr. Butler presented a report on investment compliance.

Mr. Butler highlighted that the ASRS had no issues with its pre-trade compliance system and explained the advisory systems. Mr. Butler highlighted the compliance programs the ASRS needs to follow, including the state mandates. The ASRS structures its portfolio in a way to be more compliant. BNY's compliance stated that the ASRS is following all of its guidelines.

RCLCO has completed 21 compliance reviews for the 2020 period regarding private market compliance. There were immaterial inconsistencies found, none of which impacted the portfolio, and everything was satisfactorily corrected. Mr. Butler read the summary of the report to the Committee.

Mr. Butler highlighted the Meketa Investment Group compliance program that examines the ASRS private investments outside of real estate. They have completed three compliance reviews and have an additional 36 under review and have found no material discrepancies.

Mr. Matson explained that in addition to investment compliance standards, the ASRS also has cash-flow compliance procedures, and the ASRS follows the Office of Foreign Assets Control ("OFAC") of the U.S. Department of Treasury. The ASRS makes sure that none of their pension payments or cash flows go to state-sponsored terrorist entities.

7. Presentation, Discussion, and Appropriate Action Regarding an Introduction to the Current Asset Liability Study

Mr. Matson introduced the agenda item. The ASRS goes through an asset allocation study between NEPC and the ASRS staff. The asset liability review will occur with the Investment Committee body over the course of the next two months. Mr. Matson defined the framework of asset allocation and liability studies.

Mr. Matson continued with his discussion that ASRS risk is not quarterly profit and loss, but the quarterly rate of return. The ASRS mitigates risk by focusing on the most relevant risk attribute: contribution rate levels and contribution rate movements. Mr. Matson made additional explanations about realized and unrealized gains. Mr. Matson explained that the ASRS will do an asset-liability framework that will focus on how much it will impact contribution rates, volatility, and funded status.

Mr. Matson highlighted the many definitions of risk. The ASRS prefers to use the term "standard deviation" rather than risk, which means the periodic movement of the portfolio over long periods.

Mr. Martin explained the process of the asset-liability study. NEPC will provide different outlooks of different possible portfolio mixes so that the Board can choose which model is best for contribution rates and funded status. A full asset-liability study is done every three years, but NEPC reviews the current plan yearly. NEPC takes all these forecasts for each asset class, a return on expectation, volatility, and forward-looking correlations, and builds a forecasted return for ASRS' total portfolio. The study will evaluate the impact of changing the portfolio and how it relates to employer and employee contributions and funded status stability. The study is a joint study between NEPC, RCLCO, and the ASRS.

(The meeting was paused. Mr. Mueller, Trustee, stepped out of the meeting at 4:42 p.m. and returned at 4:45 p.m. and the meeting resumed at 4:45 p.m.)

8. Request for Future Agenda Items

No requests for future agenda items were made.

9. Call to the Public

No members of the public requested to speak.

10. The next scheduled ASRS Investment Committee Meeting is scheduled for May 23, 2022 at 1:30 p.m.

Mr. Matson noted the next scheduled IC meeting is scheduled for May 23, 2022 at 1:30 p.m.

11. Adjournment of the ASRS IC Meeting.

Mr. Kevin McCarthy adjourned the meeting at 4:45 p.m.

Respectfully submitted by:

Bridget French
Investment Committee Administrator
ARIZONA STATE RETIREMENT SYSTEM