DERP Denver Employees Retirement Plan
Powering Your Future, Together.

Minutes of the DERP Retirement Board

May 16, 2024 - Meeting #859

Meeting #859 of the DERP Retirement Board was held at the DERP office and via video and audio conferencing. DERP Retirement Board Officers present were Chair Lisa Zúñiga Ramirez and Vice Chair George Delaney. Other DERP Retirement Board Members present were John Dominguez, and Guadalupe (Lupe) Guitierrez-Vasquez. DERP Advisory Committee Members present were Maro Casparian, Heather Britton (v), Roberta Monaco, and Danielle Sexton. DERP staff present were Heather Darlington, Executive Director; Roni Kirchhevel, Deputy Executive Director, and Membership Services Director; Randall Baum, Chief Investment Officer; Jake Huolihan Finance and Technology Director; James E. Thompson III, General Counsel; Julie Vlier, Marketing and Communications Director; Pamela Watson, Deputy Chief Investment Officer; Ben Baugher, IT Director; and Terri Campbell, Office Administrator. Guests present were Tim Rawal (v) and Thomas Rey (v) from UHY, Anne Harper and Tim Hall from Cheiron, and Rose Dean (v) and Robert Goldthorpe (v) from NEPC.
(v) Denotes attended virtually.

Call to Order and Roll Call

The meeting was called to order by Retirement Board Vice Chair George Delaney at 11:00 a.m. Chair Lisa Zúñiga Ramirez joined the meeting in person at 11:04 a.m. Diane Barrett was unavailable to attend.

Approval of Minutes

Minutes of meeting #858 were approved by a unanimous vote of the Retirement Board members.

Contribution Refund Percent

Heather Darlington indicated that the Retirement Board needs to consider and approve 2024 interest rates for refunded contributions. The DRMC requires a rate to be set between 1% and 3%. Since 2017, the rate has been set at 1% annually. Ms. Darlington recommended keeping the rate at 1%. Mr. Delaney asked for further clarification prior to any motion to approve. Ms. Darlington explained that employees who terminate prior to vesting have the choice to take or leave their accumulated contributions with DERP. The interest rate does not apply to employees who are vested. The Retirement Board unanimously approved setting the 2024 interest rate at 1%.

TEL (303) 839-5419
FAX (303) 839-9525
777 Pearl St.
Denver, CO 80203
DERP.org
MyDERP.org

2023 Audit

Ms. Zúñiga Ramirez invited Tim Rawal from UHY to share the 2023 audit results. Mr. Rawal explained the audit process and discussed areas of focus. He reported that UHY will be issuing an unmodified, clean opinion of DERP's 2023 financial statements. UHY did not find any material weaknesses or significant deficiencies in DERP's 2023 financial reporting, or compliance matters. DERP's 2023 audit results are outlined in a formal letter from UHY to the Retirement Board.

Ms. Zúñiga Ramirez asked Mr. Rawal to speak to the one documented misstatement. Mr. Rawal indicated that an immaterial amount was included in the reconciliation between the custodial bank and the cash prop fund. DERP management chose to update the financial statements, and ensure better reconciliation processes. Mr. Rawal ensured that this misstatement is not considered by UHY to be significant, material, or pervasive.

Ms. Darlington indicated that the Retirement Board would need to accept the financials which would allow UHY to move forward with a final draft, which also needs to be shared with the City. The Retirement Board voted unanimously to accept the financials from the 2023 audit.

Actuarial Valuation

Anne Harper from Cheiron presented the draft 01/01/2024 actuarial valuation. She indicated that all the news is positive, with DERP's funded ratio going up, actuarially determined contributions (ADC) going down, and more dollars going towards paying the principal of the unfunded liability. She attributed much of this to the fact that active payroll increased in 2023 by 12%, while it was only assumed to increase by 3%. Active membership increased by 7.5%.

Ms. Harper explained the purpose and process of creating an actuarial valuation, noting that it looks at where the plan stands today, where it has been, and what it looks like for the future.

She reported DERP's total actuarial liability for active and inactive members is about $4.5B. The market value of assets is approximately $2.6B compared to actuarial value of assets of around $2.7B, due to net deferred losses. To obtain the actuarial value of assets, investment gains and losses for the current year and prior four years are smoothed, so that 20% from each year of the five years is recognized. This smoothing method for 2023 resulted in recognizing $11M of the $55M investment gain and deferring $44M. DERP's funded status is derived by taking the actuarial value of assets of $2.7B, compared to the actuarial liability of $4.5B, resulting in an unfunded accrued liability for 2023 of approximately $1.75B. The funded ratio increased from 59% to 61%.

Ms. Harper further noted that, for valuation purposes in 2022, Cheiron separated DHHA's liabilities and assets from those of the City. Since then, gains, losses and the total value of assets are split proportionately for valuation purposes. For 2023, the actuarial value of assets is approximately $2.4B for the City, and $300M for DHHA. Unfunded amounts are approximately $1.6B for the City, and $170M for DHHA.

TEL (303) 839-5419
FAX (303) 839-9525
777 Pearl St.
Denver, CO 80203
DERP.org
MyDERP.org

Tim Hall from Cheiron spoke to the ADC as percentage of actual payroll and in actual dollars. The ADC is made up of two portions – the normal cost and amortization of the unfunded actuarial liability (UAL). For 2024, the normal cost is 8.47% of projected payroll or approximately $80M. The UAL amortization payment is 16.2% or approximately $152M. The principal payment is 3.14%. The interest payment is 13.05%. The total ADC is 24.66% or approximately $231M.

Mr. Hall compared the total ADC of 24.66% to current rates for employees at 8.45%, and employers at 17.95%, for a total of 26.40%. The surplus 1.74% goes exclusively to paying UAL principal. For 2024, this brings the principal payment up to almost 5% from 3.14%.

Mr. Hall and Ms. Harper reviewed history and trends for DERP. The ADC rates have increased in general as a result of investment performance, lowering the assumed rate of return, and methodology changes. There was significant increase of 2.71% in the ADC rate in 2019 due to a change in funding methods. However, the ADC rates have modestly declined in the past two years due to the growing workforce.

Both the actuarial value of assets and the UAL have increased over the past decade. The funded ratio has decreased overall, but has remained stable. Ms. Harper provided detail on how contributions, gains, losses, methodology, and assumption changes have impacted the unfunded liability since 2015.

Ms. Darlington summarized discussions she has had with the City finance team regarding payroll increases and projections. If DERP is made aware of some significant demographic shift in membership, Cheiron will incorporate this into the annual assumptions.

Ms. Zúñiga Ramirez remarked on 2019 as a seminal, positive pivot for DERP and that it is no coincidence this is when Ms. Darlington assumed the role of Executive Director.

Mr. Hall spoke to risks, including investment, assumption, contribution, and payroll risks. In particular, he commented on discount rates and how a change from the current rate of 7% to either 6% or 8% would impact the UAL. He included the current low discount risk obligation measure (LDROM) of 4.83% in the comparison. Essentially, there is an expected benefit for assuming risk above the LDROM.

Ms. Harper and Mr. Hall asked for questions or comments. Ms. Darlington indicated that following the review of the reports from Cheiron and NEPC, DERP management discussed the merits of separating administrative expenses from the 7% assumed rate of return. From a return perspective, the administrative expenses have been equal to approximately 20 basis points. However, for transparency and accountability, the preference is to separate the expenses versus embedding them in returns. This would also allow the administrative expenses to be covered in the year they occur and not held over for smoothing. If implemented, both Cheiron and NEPC would make the necessary analysis and adjustments to actuarial and asset assumptions.

Ms. Zúñiga Ramirez called for a motion to approve the actuarial valuation, with the change to administrative expense assumption and reporting, as suggested. The Retirement Board voted unanimously to approve.

First Quarter Investment Performance Review

Randall Baum introduced NEPC's inaugural quarterly investment report highlighting first quarter performance. The executive summary included commentary on the global economy and inflation. The magnificent seven stocks continued to outperform. Large cap American growth in general was strong and there was some broadening domestically and globally. The S&P 500 was particularly strong. Financial, technology, and energy stocks outperformed other sectors. The market remains expensive, and the equity earnings yield spread compared to the 10-Year treasury is now negative. The snapshot of annual asset class performance year-over-year since 2014 pointed to why we continually rebalance our portfolio.

Mr. Baum reported that DERP's portfolio had a 3.6% return in first quarter. He provided additional details on performance by asset class and highlighted particular managers. Real estate performance continues to be a pain point in the portfolio. Mr. Baum presented the cash flow summary by manager, which is a new feature of the quarterly reports. He then discussed rebalancing and liquidity in the DERP portfolio.

John Dominguez asked about cash management and if decisions consider confidence in the managers and asset allocations. Mr. Baum indicated that rebalancing activity is primarily focused on staying within the tolerance bands as set by the Retirement Board, with attention to cash flow needs. Cash flow projections are monitored daily.

Mr. Baum invited feedback on the new format for sharing quarterly performance and indicated that an additional executive summary page is being finalized. Mr. Dominguez stated he likes the NEPC format and the presentation of risk metrics.

Lupe Guitierrez-Vasquez asked what DERP is doing to understand and mitigate risks to cash management, including cyber security. Ms. Gutierrez-Vasquez noted that the City is negotiating with existing banking providers and cyber security is a key factor. Mr. Baum indicated that all DERP's transactions are conducted under double or triple internal controls, with both password and pin protections. Ms. Gutierrez-Vasquez indicated that the City's cash management is under increased threat requiring increasingly stringent internal controls. Ms. Watson provided further detail on the controls that are in place for DERP's cash management.

Ms. Gutierrez-Vasquez asked about challenges or opportunities for DERP to revisit cash management processes and controls. Mr. Dominguez asked if DERP's auditors play a role in testing or assessing cyber security risk. Ms. Darlington responded that BNY Mellon has their processes and controls tested and analyzed. The results and analysis are shared by BNY Mellon with UHY for DERP. Mr. Dominguez indicated he did not see a reference to cyber security in the

TEL (303) 839-5419
FAX (303) 839-9525
777 Pearl St.
Denver, CO 80203
DERP.org
MyDERP.org

2023 audit report from UHY. Ms. Darlington indicated that DERP has contracted with a vendor for cyber security efforts, and that more details will be shared during an upcoming meeting in 2024.

Asset-Liability Study and Asset Allocation

Mr. Baum introduced Rose Dean and Robert Goldthorpe from NEPC. Mr. Baum reminded the Retirement Board that it is one of their non-delegated duties to review and approve the asset allocation. The asset allocation is reviewed at least annually. Once every five years, DERP conducts an asset-liability study. The asset-liability study requires communication between Cheiron and NEPC to ensure accuracy.

Ms. Dean stated that the presentation will be in two parts. First, they will cover assumptions, which go into forward-looking expectations for each asset class. Second, they will review the asset-liability study with Cheiron's cash flow projections.

NEPC takes a systematic, building block approach which looks at multiple asset classes to determine potential risk and return. Ms. Dean discussed projections for inflation and returns across several asset classes, including cash and both public and private equity. Ms. Zúñiga Ramirez asked for context around China's growth projections. Mr. Goldthorpe offered that the valuation for China is positive in the long term given a growing middle class and expectations of transitioning into a more developed economy. Ms. Dean added that the expectations do not include volatility assumptions, which is greater for China than it is for the US. Mr. Baum added that the building blocks do not result in precisely accurate, conclusions, and are used alongside other considerations.

Mr. Dominguez asked if foreign currency is considered for non-U.S. returns. Mr. Goldthorpe confirmed that foreign currency adjustments are not part of the building blocks.

Ms. Dean reviewed the asset-liability study. As of January 1, 2024, DERP's funded ratio on an actuarial basis was 60.6% and 56.6% on a market basis. She stated that NEPC and DERP staff are recommending incremental changes to the current asset allocation mix. These changes include reducing emerging markets equity exposure and eliminating emerging market debt, increasing private debt allocation, shifting real estate exposure, and increasing infrastructure exposure.

Mr. Goldthorpe reviewed the assumptions and methods used for the asset-liability study, including highlights from the actuarial valuation.

Ms. Dean reviewed the asset allocation proposal. The incremental changes from the current policy include decreases in emerging market equity (8% to 6%), and emerging market debt (2% to 0%). The changes reflect increases in private debt (6.5% to 9%), and private real assets infrastructure (3% to 4.5%). In total, equity decreases from 53% to 51%. Total fixed income increases from 23.5% to 24%. Total real assets increase from 16.5% to 18%. Mr. Dominguez asked if the Retirement Board was constrained to the asset mixes presented. Mr. Baum

TEL (303) 839-5419
FAX (303) 839-9525
777 Pearl St.
Denver, CO 80203
DERP.org
MyDERP.org

responded that there are some constraints around liquidity and returns, but that everything was on the table and multiple scenarios were considered before settling on the recommended mix. Ms. Dean added that markets are in an unsettled state with high valuations and an uncertain interest rate path and therefore this may not be the best time to make significant changes to the portfolio. Mr. Goldthorpe provided examples as to why the proposed mix is realistic in the circumstances.

Ms. Gutierrez-Vasquez noted the current and proposed mixes have expected 10-year returns below the current assumed 7% rate of return, and asked if staff has considered changing the current assumption. Mr. Baum noted the 30-year expected returns are in excess of the assumption. He further described reasons to regard the assumptions and forecasted returns as imprecise, and since the two time horizons bracket the assumed rate, there is no strong argument to recommend a change. Ms. Gutierrez-Vasquez asked if increases to private debt will require adding new managers, and Mr. Baum confirmed it would.

Ms. Zúñiga Ramirez commented that even in the current expensive equity market environment, major changes may be positive. She cautioned about potentially missing opportunity by being risk averse. Mr. Dominguez echoed that the recommended decision seems to be status quo. Mr. Baum agreed that we would like to see a greater return, but stressed prudence. DERP has lagged peers due to a lower allocation to public equities. Ms. Dean added that DERP needs to determine how much volatility it is willing to assume to maintain and grow its assets given its current funded status. It was agreed an asset mix that would produce a 10-year return of 7% would be presented so the trade-offs could be examined.

Ms. Zúñiga Ramirez noted that it might be helpful to see an exhibit demonstrating what impacts higher volatility has on potential outcomes in order to understand the logic of the current proposal. Ms. Gutierrez-Vasquez added that more detail on illiquidity risk may also be beneficial. Mr. Dominguez indicated that it might also be beneficial to drill into our U.S. versus non-U.S. investments, noting the recommendation around emerging markets. Mr. Goldthorpe remarked that sectors across geographies are another consideration.

Ms. Zúñiga Ramirez noted that the Retirement Board would like more details prior to putting any change to the asset allocation to a vote and asked if geopolitical considerations should also be included. Ms. Dean remarked that geopolitical uncertainty is real, but is hard to predict and incorporate into scenarios.

The Retirement Board acknowledged the work and expertise to get to the current asset allocation proposal. All agreed to defer a decision until more detail has been provided. Mr. Baum indicated that there is no time constraint and agreed to provide the requested information.

TEL (303) 839-5419
FAX (303) 839-9525
777 Pearl St.
Denver, CO 80203
DERP.org
MyDERP.org

Ms. Guitierrez-Vasquez inquired about borrowing or bridge financing. Mr. Baum responded that there are pension plans that borrow, but that it is unlikely for DERP. Mr. Dominguez mentioned that having lines of credit available may be worth exploring.

Asset Class Review: Real Estate

In the interest of time, and with apologies to Ms. Watson, Ms. Zúñiga Ramirez asked the Retirement Board and Advisory Committee to review the materials in the meeting packet and forego a presentation.

Advisory Committee Comments

Ms. Zúñiga Ramirez invited Advisory Committee members to comment.

Member and/or Guest Comments

Ms. Zúñiga Ramirez noted that no members were present to comment.

Review of Next Meeting and Call for Topics

The next regularly scheduled Retirement Board meeting is Friday, July 19, at 9:00 a.m.

Adjournment

The meeting was adjourned at 2:29 p.m.

__________________________________ __________________________________

DERP Retirement Board Chair DERP Executive Director

TEL (303) 839-5419
FAX (303) 839-9525
777 Pearl St.
Denver, CO 80203
DERP.org
MyDERP.org