Retirement Board

Monday, February 12, 2024, 9:30 AM, REMOTE ONLY

Join Zoom Meeting
https://zoom.us/j/94057530330?pwd=Mm9qMFBHV3J0a2oyVEI1KzFTVU5MZz09
Meeting ID: 940 5753 0330

1. Agenda

Subject	**1.1. Motion to adopt agenda**
Meeting	February 12, 2024 - Retirement Board Meeting - Monday, February 12, 2024, 9:30 AM, REMOTE ONLY
Category	1. Agenda
Department	Retirement Administration
Type	Action Procedural
Recommended Action	Motion to adopt agenda

2. Public Forum

Subject	**2.1. Verbal Comments**
Meeting	February 12, 2024 - Retirement Board Meeting - Monday, February 12, 2024, 9:30 AM, REMOTE ONLY
Category	2. Public Forum
Department	Retirement Administration
Type	Action Procedural

3. Approve Minutes from January 22. 2024

Subject	**3.1. January 22, 2024 Draft Minutes**

Meeting	February 12, 2024 - Retirement Board Meeting - Monday, February 12, 2024, 9:30 AM, REMOTE ONLY
Category	3. Approve Minutes from January 22. 2024
Department	Retirement Administration
Type	Action Minutes

4. Administrative Update

5. Fiducient

Subject	**5.1. Investment Portfolio and Performance Update as of 01/31/2023**
Meeting	February 12, 2024 - Retirement Board Meeting - Monday, February 12, 2024, 9:30 AM, REMOTE ONLY
Category	5. Fiducient
Department	Retirement Administration
Type	Information

Subject	**5.2. Fiducient's Asset Allocation Modeling & Portfolio Implications for BERS**
Meeting	February 12, 2024 - Retirement Board Meeting - Monday, February 12, 2024, 9:30 AM, REMOTE ONLY
Category	5. Fiducient
Department	Retirement Administration
Type	Information Presentation

6. FY23 Valuation Report - USI Consulting (formerly H&H)

Subject	**6.1. FY23 Valuation Report - USI Consulting (formerly H&H)**
Meeting	February 12, 2024 - Retirement Board Meeting - Monday, February 12, 2024, 9:30 AM, REMOTE ONLY
Category	6. FY23 Valuation Report - USI Consulting (formerly H&H)
Department	Retirement Administration
Type	Information Presentation

7. Adjournment

Subject	**7.1. Motion to adjourn**
Meeting	February 12, 2024 - Retirement Board Meeting - Monday, February 12, 2024, 9:30 AM, REMOTE ONLY
Category	7. Adjournment

Department	Retirement Administration
Type	Action Procedural
Recommended Action	Motion to adjourn

BURLINGTON RETIREMENT BOARD
CITY HALL, 1ST FLOOR BUSHOR CONF ROOM
OR
REMOTE MEETING WITH CALL-IN
BURLINGTON, VERMONT
MINUTES OF MEETING
DRAFT
January 22, 2024

MEMBERS PRESENT:	Robert Hooper (Chair, via Zoom) Munir Kasti (Vice Chair) Patrick Robins (via Zoom) Tom Chenette David Mount Katherine Schad Matt Dow (via Zoom)
MEMBERS ABSENT:	Kyle Blake
OTHERS PRESENT:	Hayley McClenahan Darlene Baker Kate Pizzi Chris Rowlins Brad Long

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1.0 CALL TO ORDER
Munir Kasti called the Retirement Board meeting to order at 9:30 AM.

MOTION by David Mount, SECOND by Tom Chenette, to adopt the agenda.

VOTING: unanimous; motion carries (Patrick Robins absent for vote).

2.0 PUBLIC FORUM (VERBAL)
2.01 Verbal Comments
None.

3.0 APPROVE MINUTES

3.1 December 18, 2023

MOTION by Munir Kasti, SECOND by David Mount, to approve the minutes of December 18, 2023 with corrections to add detail explaining Mr. Kasti's dissenting vote on pausing the rate of return assumption at 7.1%.

VOTING: unanimous; motion carries (Patrick Robins absent for vote).

4.0 APPROVE RETURN OF CONTRIBUTIONS

4.1 Bartlet, Sherman, Class B $575.90, Effective Date of Benefit: 01/01/2024

MOTION by Munir Kasti, SECOND by David Mount, to approve the return of contributions for individuals listed in 4.1-4.6 as a slate.

VOTING: unanimous; motion carries.

4.2 Kenneth C. Martel, Class B $363.91, Effective Date of Benefit: 02/01/2024
See item 4.1 above.

4.3 Malik A. Mines, Class B $6,064.02, Effective Date of Benefit 02/01/2024
See item 4.1 above.

4.4 Clayton D. Ellwood, Class B, $7,757.98, Effective Date of Benefit: 02/01/2024
See item 4.1 above.

4.5 Corey Souza, Class B, $27,732.56, Effective Date of Benefit: 02/01/2024
See item 4.1 above.

4.6 Jeffrey Padgett, Class B, $14,965.30, Effective Date of Benefit: 12/01/2023
See item 4.1 above.

5.0 APPROVE RETIREMENT APPLICATIONS

5.1 Chris A. Charbonneau, Class B, $2,972.88, Effective Date of Benefit: 12/01/2023, Payment Date: 12/15/2023

MOTION by Munir Kasti, SECOND by David Mount, to approve the retirement applications for individuals listed in 5.1-5.3 as a slate.

VOTING: unanimous; motion carries.

5.2 Lisa Craver, Class B, $90.63, Effective Date of Benefit: 02/01/2024, Payment Date: 02/15/2024
Mr. Chenette asked about the low dollar amount for Ms. Craver's benefit, and Chief Administrative Officer Schad replied that this was an instance where an individual worked for the City in 1979 for a relatively short stint of time and then went on to have a full career elsewhere.

Mr. Kasti asked for an analysis of how many pensions are in the system for $50 or less and $100 or less. Chief Administrative Officer Schad noted that she will work with staff to put this analysis together for next month's meeting.

See item 5.1 above for approval vote.

5.3 Richard W. Haesler, Class B, $1,810.05, Effective Date of Benefit: 02/01/2024, Payment Date: 02/15/2024
See item 5.1 above.

6.0 ADMINISTRATIVE UPDATE

6.1 Linda Tang pension benefit calculation
Chief Administrative Officer Schad provided an update on this benefit calculation. She noted that this individual worked both for the City and for the Burlington Electric Department, which fall under two different union contracts and pension plans. She said that they have collected the historical data around this case and need to meet with Mr. Kasti to make a determination about the best path forward and making a recommendation to this board. Assistant City Attorney McClenahan noted that in August 2022, a calculation was put before this board which was tabled, and it must be picked back up and either approved or replaced with another calculation.

7.0 FIDUCIENT

7.1 Investment Review as of 12/31/2023
Ms. Pizzi began by noting that the fiduciary governance calendar for Q4 includes conducting an investment review, which is what she will focus on during this item. She spoke about market themes, noting a widely forecasted recession in 2023 that failed to materialize, moderated rates of inflation, and that narrow market leadership of U.S. technology stocks during 2023 has created potential opportunities in other market segments. She noted that one of Fiducient's focuses in the BERS portfolio, given the market uncertainty over the past year, has been to build a resilient portfolio through asset allocation and diversification to prepare for market downturns, rather than trying to predict them.

Ms. Pizzi then spoke about asset class returns as of December 31, 2023, focusing on areas of exposure for the BERS portfolio. She noted that U.S. core bonds quarterly performance was up 6.8% over the last quarter, which resulted in the class's overall positive performance for the year (5.5%). She said that this was driven by interest rates coming down, and the inverse relationship between interest rates and bond value. She also spoke about high yield's good performance, as well as good performance for U.S. long duration bonds. She then spoke about equity asset classes, noting that large cap equities were up 12% for the quarter, and that small caps were at 14% for the quarter (noting that small cap equities tend to be more interest sensitive, so the growth was driven by the lower interest rates). She said that equity performance for the year was strong across the board. She then spoke about real estate and alternative asset classes, noting that the BERS portfolio has exposure to this through Trumbull properties, and noting that Trumbull performed better than their benchmark this quarter. She noted negative performance in commodities, though she added that the BERS portfolio does not have exposure to commodities.

Mr. Rowlins then spoke about BERS portfolio specifically, noting that its total value stands at $233.6 million. He spoke about fixed income, noting that its allocation is in line with the benchmark, and also noting a decision in 2022 to use BlackRock Strategic Income Opportunities to more flexibly and nimbly respond to some of the market volatility and temper some of the interest rate risk within the fixed income space, and that it has served the portfolio well. He spoke about equities, noting that it also aligns with the benchmark in terms of allocation within the portfolio. He spoke about real assets, noting that BERS is in the redemption queue for UBS Trumbull Properties.

Mr. Rowlins then spoke about the portfolio performance as of the end of December, 2023. He noted that the portfolio saw weak performance in October, but stronger performance in both November and December. He noted that overall performance for the quarter was 9.4% growth, which is in line with the benchmark. He said that overall fiscal year performance was at around 5.8% growth, and one-year growth was 15.2%. He spoke in more detail about the declining interest rate environment, which was very conducive to growth in the fixed income space. He spoke about the tailwinds in the domestic and international equity markets that helped boost performance.

7.2 Fiducient's 2024 Outlook & Capital Market Assumptions
Mr. Long began by noting that every year Fiducient updates its 10-year market assumptions, and spoke about the benefits of long-term versus short-term investing. He outlined Fiducient's updated 10-year outlook (for 2024-2033) for each fixed income, global equity, and real assets and alternatives classes. He noted that in the fixed-income space, yields rose in 2023, which drove the increased forward long-term return assumptions. He noted that within equities, the forecast is flat due to higher valuations and modest earnings growth for 2023. He spoke about the modest exposure to real assets and alternatives in the portfolio, and spoke about Fiducient's positioning around inflation. He said that as the Fed strives to get to their target interest rate, it could take several paths to get there. One of them is a soft landing, in which interest rates are tempered and the Fed cuts interest rates modestly. Another is economic contraction or recession, in which the Fed more meaningfully cuts interest rates. He said that both of these are more likely than the Fed raising interest rates in 2024, and that Fiducient has positioned the portfolio accordingly. Mr. Robins asked which real asset classes are predicted for growth in the next year. Mr. Long replied that they don't make one-year forecasts in this exercise, and that real estate is a broad basket. He said that under a more modest environment in which interest rates fall, real estate could benefit from lower rates.

Mr. Long then spoke about what this outlook could mean for asset allocation in the BERS portfolio and potential updates for 2024. He said that fixed income is attractive on a ten-year forward basis, and is attractive relative to equities. He said that within fixed income, what looks most attractive is the high-quality intermediate fixed income (U.S. bonds) that are modestly sensitive to changes in interest rates. He said that in terms of equities, there are modest increases in U.S. large cap and modest decreases across small international cap and emerging markets. He said that with global equities, there is more geopolitical risk and potential impacts on returns and risks, as well as potentially stronger performance in the long-term for the U.S. technology sector (driven by the Magnificent 7), resulting in a reduced overweight to these non-U.S. equities. He spoke about real assets, noting that there is only modest exposure, and said that they would propose modest repositioning toward assets that can benefit from a wider variety of factors.

Mr. Long then spoke about the portfolio implications of this analysis. He said that in general, the 10-year return shows increased opportunity across fixed income and real assets with a modest reduction in equity return expectations. He said that range-bound inflation opens multiple paths and flexibilities to get to lower rates, which creates opportunities for more tailwinds in the fixed income and more rate-sensitive asset spaces. He said that narrow market leadership in U.S. equities means that exposure to large cap U.S. equity remains appropriate, but that long-term investment will benefit from exposure to U.S. small/mid cap and non-U.S. stocks. Mr. Robins noted that he has failed to see a return in emerging market investments over the past 5 or 6 years, and asked when that might materialize. Mr. Long replied that it has been underperforming in the last 3-5 years, noting that much of the emerging market relates to China, and that China has struggled over the past several years due to Covid. He also noted that this market tends to move in longer cyclical cycles, noting that prior to the 2008 financial crisis, emerging markets were outpacing the S&P by a very large margin.

8.0 ADJOURN

8.1 Motion to Adjourn

The meeting adjourned at 10:30 AM.

RScty: AACoonradt

Burlington Employees' Retirement System

Updated Balances

Investment Name	Unreconciled Balance As of: 01/31/2024 (unless otherwise stated)	Current Allocation	Current Target Allocation	Difference
Cash	**$310,123**	**0.1%**	**0.0%**	**0.1%**
Fixed Income	**$59,950,937**	**25.6%**	**25.0%**	**0.6%**
Johnson Institutional Core Bond	$42,461,579	18.1%	17.5%	0.6%
BlackRock Strategic Income Opportunities K	$17,489,358	7.5%	7.5%	0.0%
Domestic Equity	**$99,871,005**	**42.7%**	**41.0%**	**1.7%**
BNYM Mellon DV NSL Stock Index Fund	$79,432,796	33.9%	32.0%	1.9%
BNYM Mellon DV SL Smid Cap Stock Index Fund	$20,438,209	8.7%	9.0%	-0.3%
International Equity	**$64,328,027**	**27.5%**	**27.5%**	**0.0%**
BNYM Mellon DV NSL International Stock Index Fund	$49,127,499	21.0%	20.5%	0.5%
BNYM Mellon DV NSL Emerging Markets Stock Index Fund	$15,200,528	6.5%	7.0%	-0.5%
Alternatives - Private Equity	**$695,604**	**0.3%**	**0.5%**	**0.3%**
Alternatives - Real Assets	**$8,926,278**	**3.8%**	**6.0%**	**-2.2%**
UBS Trumbull Property Fund	$8,926,278	3.8%	6.0%	-2.2%
Investment Portfolio Total	**$234,081,973**	**100.0%**	**100.0%**	**0.5%**

Balance information has been compiled solely by Fiducient Advisors and has not been independently verified. In preparing this report, Fiducient Advisors has relied upon information provided by the investment managers and/or the custodian. Unless otherwise noted, daily valued investments are valued as of the previous business day's closing NAV. Held at source investments are valued as of the most recent month end statement, unless otherwise noted. Exceptions to daily liquidity are noted, if applicable.

FIDUCIENT Advisors

Helping Clients Prosper

BERS Asset Allocation Analysis

February 2024

Disclosure

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2024-2033 Ten-Year Outlook

			2024	2023	Y / Y Change
Fixed Income	The Federal Reserve continued its battle with inflation in 2023 and the market began to believe the rhetoric of "higher for longer". Yields rose across much of fixed income, improving forward long-term return assumptions.	U.S. Bonds	5.7%	5.0%	0.6%
		TIPS	5.2%	4.6%	0.6%
		Dynamic Bonds[1]	6.5%	5.6%	0.9%
	Credit, specifically high yield, was one of the best performing fixed income asset classes in 2023. 2024 projections rose solely based on higher Treasury rates as spreads (the additional yield aboveTreasuries) fell over the year.	High Yield Bonds	7.7%	7.1%	0.6%
		Global Bonds	5.6%	5.1%	0.5%
	Municipal bond forecasts rose as well based on higher rates, but so did interest rate risk given the structure of the market.	Muni Bond[2]	6.3%	5.8%	0.5%
		Muni High Yield[2]	10.2%	9.9%	0.3%
Global Equity	U.S. equity forecasts are nearly flat year over year driven by higher valuations and very modest earnings growth for 2023. International forecasts fell on a similar accord, but to a larger degree also driven by higher anticipated volatility outside of the U.S. Valuations outside the U.S. remain below their 20-year averages while U.S. valuations remain above 20-year averages.	U.S. All Cap	6.5%	6.7%	-0.2%
		Intl Developed Equity	8.2%	8.9%	-0.7%
		Emerging Markets	10.1%	10.8%	-0.7%
Real Assets & Alternatives	Real assets broadly struggled to keep up with equity markets as inflation fell throughout 2023. On the backs of lower prices and inflation remaining elevated, forecasts across real asset categories rose.	Real Estate	7.0%	6.4%	0.6%
		Broad Real Assets[3]	7.5%	6.8%	0.7%
	Marketable alternatives forecasts benefited from higher base rates of returns earned in Treasuries and higher expected volatility within and across asset classes.	Marketable Alts	8.4%	8.1%	0.3%
	Private equity forecasts are largely flat year over year based on the offsetting factors of improving private equity valuations and more modest earnings growth outlook.	Private Equity	9.5%	9.7%	-0.2%

1) Dynamic bonds are a blend of 33% Cash, 33% Corp HY, and 34% Global Bonds. 2) Tax Equivalent yield based on highest marginal Federal tax rate (37%). 3) Broad Real Assets is 20% REITS, 20% Global Infrastructure, 20% Commodities, 20% US Bonds, 15% Corp High Yield, 5% TIPS Outputs and opinions are as of the date referenced and are subject to change based on market or economic conditions. Information is intended for general information purposes only and does not represent any specific investment recommendation. Please consult with your advisor, attorney and accountant, as appropriate, regarding specific advice. There is no guarantee that any of these expectations will become actual results.. For additional information on forecast methodologies, please speak with your advisor. Please see Index Proxy Summary slide at the end of this presentation for summary of indices used to represent each asset class. Past performance does not indicate future performance and there is a possibility of a loss. Please see the Frontier Engineer Hypothetical Performance Disclosures at the end of the presentation for additional information.

2024 Allocation Updates

Category	Asset Class	Y / Y Change	Context
Fixed Income	U.S. Bonds	▲▲	Increased yields, attractive return potential relative to global equity and a Fed policy path that has increasing potential to moderate or move lower makes intermediate investment-grade bonds more attractive.
	TIPS	▼	High real yields and inflation forecasts above the Fed's target of 2% make TIPS compelling, but higher yields and less overall interest rate risk make U.S. Bonds more so, therefore we are reducing TIPS modestly year over year.
	Dynamic Bonds	- -	Given broader interest rate volatility and the potential for more credit relative events in the future, flexibility remains an attractive trait but we are not compelled to shift allocations at this time.
	High Yield Bonds	▼	While yields are high relative to recent history, spreads (the yield above Treasuries) are modest. Coupled with our view that credit risk will rise in the coming years, we are reducing our allocation to credit risk broadly.
	Global Bonds	▼	The outlook for global bonds remains attractive, but on a risk-adjusted basis slightly less than U.S. Therefore, we are modestly reducing the position.
Global Equity	U.S. Large Cap	▲	We remain underweight U.S. large cap stocks based on the relative opportunity to U.S. small and international equities. However, we have reduced that underweight based on the significant percentage increase in U.S. equities in global indices.
	U.S. Mid/Small Cap	▼	We remain overweight U.S. small cap securities. The dispersion between U.S. large and small cap stocks driven by a handful of securities has produced near-all time relative valuation differences. Additionally, small cap securities may benefit from easing rate policies. However, we have reduced that overweight based on the significant percentage increase in U.S. large cap equities in U.S. indices.
	Int'l Developed Equity	▼	Non-U.S. equity remains attractive and an overweight within portfolios, but risk management compels us to temper how far to extend that view. Therefore, we are reducing our overweight slightly to non-U.S. equities. Valuations remain compelling both relative to both the U.S. and their own 20-year history. However, geopolitical risks remain elevated and in some way have expanded over the course of 2023.
	Emerging Markets	▼	
Real Assets & Alternatives	Real Estate	▼	Our overall level to real assets will remain the same year over year give our view of inflation remaining in the "messy middle". A 2% - 5% range offers compelling opportunities within the overall category. However, our mix is shifting away modestly from real estate and toward assets that can benefit from a wider variety of factors.
	Broad Real Assets	▲	

Portfolio Implications

- Our 10-year return forecasts show increased opportunity across fixed income and real assets with a modest reduction in equity return expectations.
  - *This makes for one of the more attractive risk-adjusted returns for fixed income relative to equity we have seen in several years.*

- We believe range-bound inflation opens multiple paths to lower rates, creating opportunities for tailwinds in fixed income and more rate-sensitive assets.

- Narrow market leadership in U.S. equities creates fragility within, and opportunity outside of, U.S. technology stocks.
  - *Exposure to large cap U.S. equity remains appropriate, but we also believe long-term investors will benefit from exposure to U.S. small and mid capitalization and non-U.S. stocks.*

- The most predicted recession in history has not yet come to pass. We believe investor mindsets should shift from **predict** to **prepare**, as risks remain acute and market timing futile.
  - *The best way to prepare for uncertainty is by building a well-diversified portfolio.*

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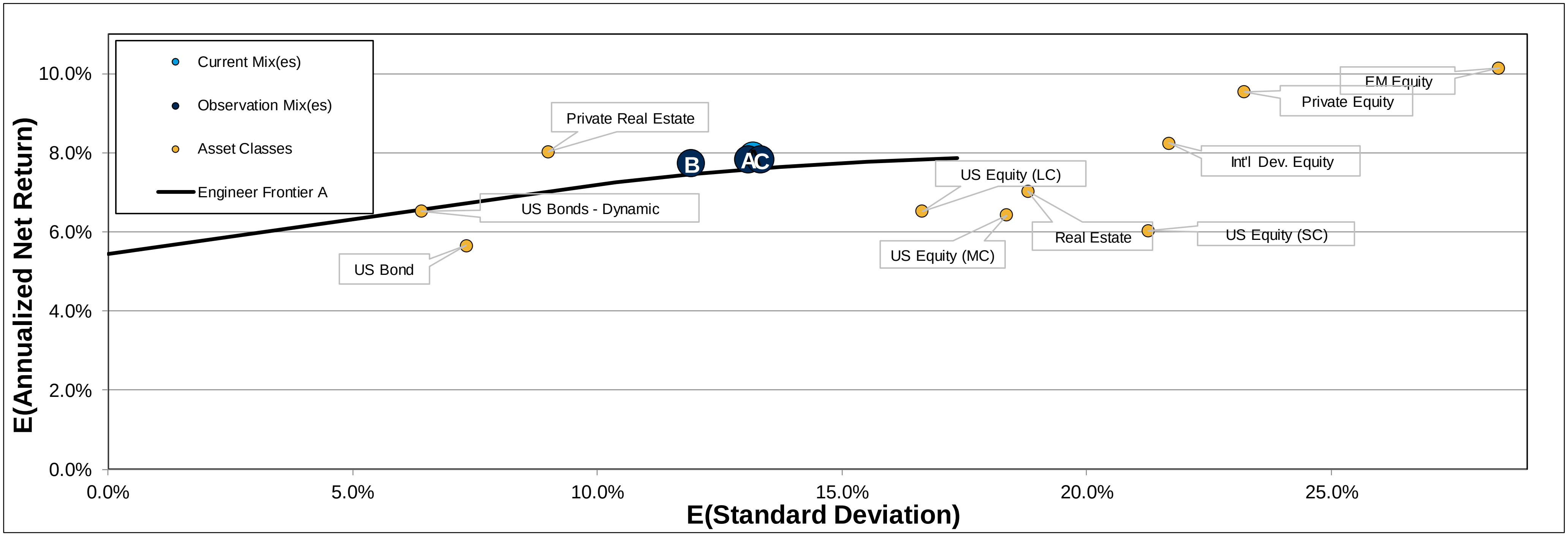
Asset Allocation Analysis

- We believe **Asset Allocation** is the primary determinant of long-term investment results.
- Our propriety **Frontier Engineer®** system is the cornerstone of asset allocation decisions.
- Our Capital Markets Group develops **Capital Market Assumptions** (CMAs) for each major asset class at least annually.
  - ✓ The Capital Markets Group considers and analyzes a wide variety of factors that we believe will have the greatest impact on future returns and risks for each asset class studied.
  - ✓ Our CMAs are not intended to predict the future return in any single year, but rather to reflect our median expected outcome over the next ten years.
  - ✓ Our forecasting efforts center on **a ten-year horizon**. Any adjustments made to extend the forecast horizon to **twenty years** or beyond are grounded in our expectation that asset classes ultimately mean revert towards longer term historical averages.
  - ✓ Fiducient Advisors' Capital Markets Team develop our CMAs based on a "building block" approach outlined in our white paper "Capital Market Forecasts". (Copies are available upon requested.)
- **Correlations** (how asset classes behave in reference to one another) also significantly impact asset allocation analysis.
- **Fat Tails** (non-normal return elements of skewness & kurtosis) also meaningfully impact our asset allocation analysis.

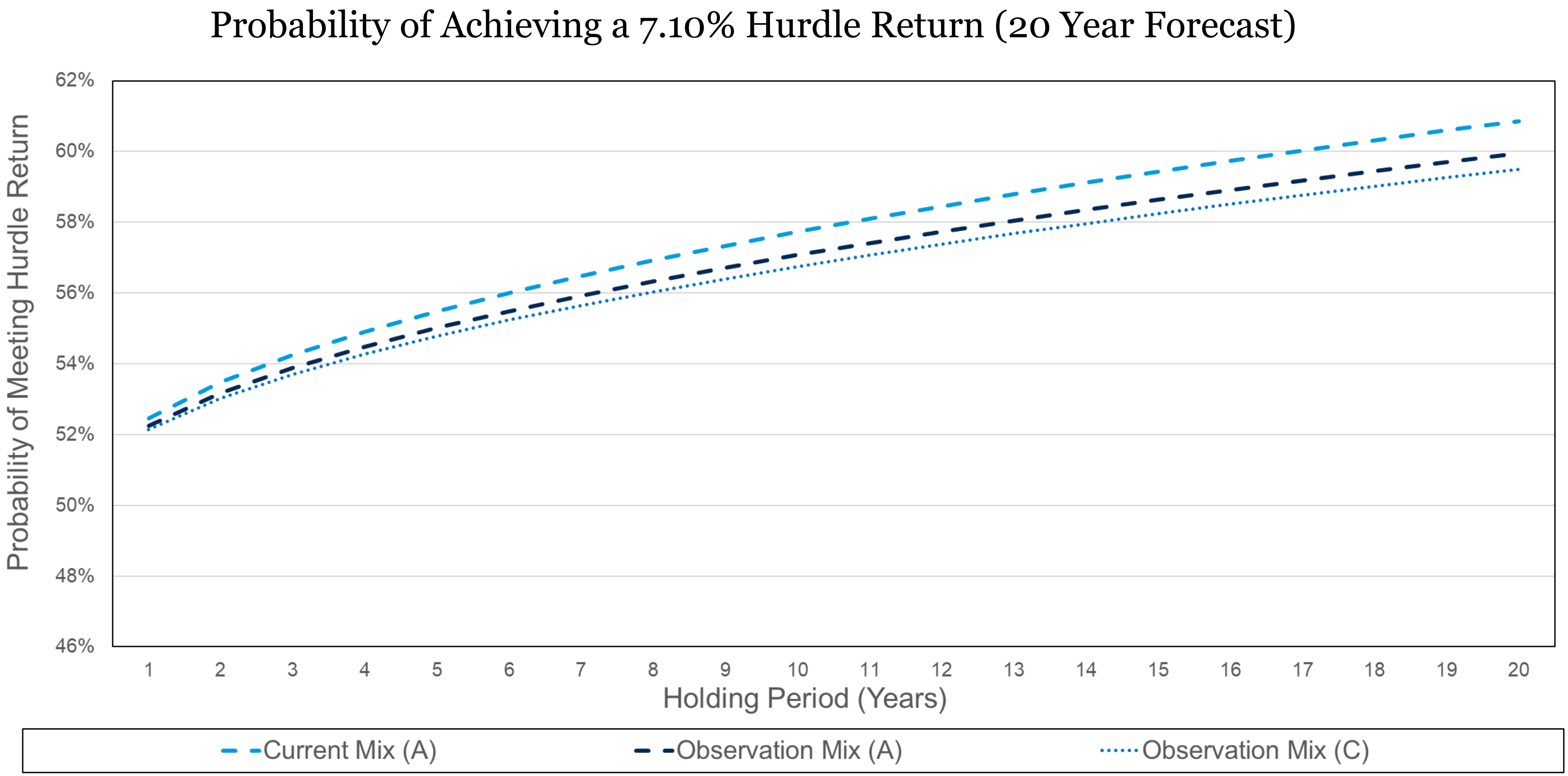
Asset Allocation Analysis: Frontier Engineer® Analysis

	Asset Allocation														Forecasts				Past (1/88-11/23)	
	Fixed Income	Equity	Real Assets	Alternatives	US Bond	US Bonds - Dynamic	US Equity (LC)	US Equity (MC)	US Equity (SC)	Int'l Dev. Equity	EM Equity	Real Estate	Private Real Estate	Private Equity	Annualized Net Return	Annualized Volatility	Normal 100 Year Flood*	Non-Normal 100 Year Flood**	Annualized Net Return	Annualized Volatility
Current Mix (A)	25%	69%	6%	1%	17.5%	7.5%	32.0%	6.4%	2.6%	20.5%	7.0%		6.0%	0.5%	7.9%	13.2%	-22%	-29%	8.9%	11.4%
Observation Mix (A)	27%	69%	4%	1%	20%	7%	33%	4.0%	5.5%	19.0%	7.0%	0%	4%	0.5%	7.8%	13.1%	-22%	-28%	8.8%	11.2%
Observation Mix (B)	35%	61%	4%	1%	27.5%	7.5%	28.0%	6%	3.5%	16.5%	6.5%	0%	4%	0.5%	7.7%	11.9%	-19%	-25%	8.6%	10.1%
Observation Mix (C)	27%	69%	4%	1%	20%	7%	33%	4.0%	5.5%	19.0%	7.0%	4%		0.5%	7.8%	13.3%	-22%	-28%	8.9%	11.1%



*The expected one in a hundred worst case calendar year return based on normally distributed capital market assumptions. Greater losses are possible (1% expected likelihood).
**The expected one in a hundred worst case calendar year return based on non-normally distributed capital market assumptions (factoring in skewness & kurtosis). Greater losses are possible (1% expected likelihood).
Historical Returns and Risk Metrics for each Mix represent back-tested calculations developed with the benefit of hindsight. Return calculations use an asset-weighted methodology based on the target asset allocation of each mix and the total return of index proxies used to represent each asset class and are net of fees. Historical returns are hypothetical and do not represent returns earned by a client. It is not possible to invest in an index. Please see the Frontier Engineer Hypothetical Performance Disclosures at the end of the presentation for additional information, including index proxies used to represent each asset class. Please ask for a copy of Fiducient Advisors' white paper titled 10-Year Capital Market Forecasts. Past performance does not indicate future performance and it is possible to lose money when investing. Please refer to the Capital Markets Assumptions Slide for the hypothetical alpha and hypothetical fee inputs used in the calculation methodology.

Asset Allocation Analysis: Probability of Success



**The expected one in a hundred worst case calendar year return based on normally distributed capital market assumptions. Greater losses are possible (1% expected likelihood).*

***The expected one in a hundred worst case calendar year return based on non-normally distributed capital market assumptions (factoring in skewness & kurtosis). Greater losses are possible (1% expected likelihood).*

Historical Returns and Risk Metrics for each Mix represent back-tested calculations developed with the benefit of hindsight. Return calculations use an asset-weighted methodology based on the target asset allocation of each mix and the total return of index proxies used to represent each asset class and are net of fees. Historical returns are hypothetical and do not represent returns earned by a client. It is not possible to invest in an index. Please see the Frontier Engineer Hypothetical Performance Disclosures at the end of the presentation for additional information, including index proxies used to represent each asset class. Please ask for a copy of Fiducient Advisors' white paper titled 10-Year Capital Market Forecasts. Past performance does not indicate future performance and it is possible to lose money when investing. Please refer to the Capital Markets Assumptions Slide for the hypothetical alpha and hypothetical fee inputs used in the calculation methodology.

Allocation Changes for Consideration by BERS

Investment Name	Action	Current Target Allocation	New Allocation	Change
Cash	*No change*	**0.0%**	**0.0%**	**0.0%**
Fixed Income	*Increase*	**25.0%**	**27.0%**	**2.0%**
Core Bonds	Increase	17.5%	20.0%	2.5%
Dynamic Bonds	Decrease	7.5%	7.0%	-0.5%
Domestic Equity	*Increase*	**41.0%**	**42.5%**	**1.5%**
US Large Cap	Increase	32.0%	33.0%	1.0%
SMID Cap	Increase	9.0%	9.5%	0.5%
International Equity	*Decrease*	**27.5%**	**26.0%**	**-1.5%**
Developed Markets	Decrease	20.5%	19.0%	-1.5%
Emerging Markets	No change	7.0%	7.0%	0.0%
Private Real Estate	*No change*	**6.0%**	**4.0%**	**-2.0%**
Private Equity	*No change*	**0.5%**	**0.5%**	**0.0%**
Investment Portfolio Total		**100.0%**	**100.0%**	**0.0%**

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U.S. Investment Grade Bonds

Represented by the Barclays U.S. Aggregate Bond Index, the category represents investment grade bonds traded in United States. The index includes Treasury securities, Government agency bonds, Mortgage-backed bonds, Corporate bonds and a small amount of foreign bonds traded in the US. Municipal bonds and TIPS are excluded from the index.

10-Year Forecasts

Annual Return	Annual Risk
5.7%	7.3%

Historical Returns as of 12/31/23

Bloomberg US Agg Bond TR USD

	1 Year	3 Year	5 Year	10 Year	15 Year
Annualized Total Returns	5.5%	-3.3%	1.1%	1.8%	2.7%
Annualized Standard Deviation	8.5%	7.2%	6.2%	4.8%	4.2%

Pros:
- *Intermediate Duration:* Relatively modest average duration (typically between 5 - 7 years) leads to moderate volatility.
- *High Quality:* Heavy exposure to the highest quality (AAA) U.S. fixed income segments. No high yield (BB or lower) exposure.
- *Deflation/Disinflation Protection:* Declining interest rates lead to short-term price gains.
- *Portfolio Ballast:* Typically provides favorable correlation benefits relative to risk assets in times of economic and/or financial turmoil.

Cons:
- *Modest Return Potential:* High quality nature moderates return potential relative to riskier segments of the portfolio.
- *Credit Risk:* Subject to some relatively modest credit risk.
- *Interest Rate Risk:* Bond prices fall in a rising interest rate (and/or inflationary) environment.

Highest Correlation:

TIPS
Municipal Bonds
Global Bonds

Lowest Correlation:

EM Equity
U.S. Small Cap
Global Equity

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Dynamic Bonds

Bonds issued in the United States & foreign developed countries including but not limited to, Japan, United Kingdom, France, Germany, Italy, Spain, Canada, Netherlands, Belgium, Australia, Denmark, Sweden and emerging economies. Issues include government securities, corporate credit, structured securities and derivatives. Derivative allocations include futures, swaps and forwards, which may be utilized to hedge exposures or create synthetic exposures.

10-Year Forecasts

Annual Return	Annual Risk
6.5%	6.4%

Historical Returns as of 12/31/23

***Custom Blend of Indices**

	1 Year	3 Year	5 Year	10 Year	15 Year
Annualized Total Returns	8.6%	0.8%	3.0%	2.8%	4.4%
Annualized Standard Deviation	4.3%	4.5%	4.5%	3.4%	3.4%

** Dynamic bonds are a blend of 33% Cash, 33% Corp HY, and 34% Global Bonds.*

Pros:

- *Large Opportunity Set:* There are many fixed income opportunities other than traditional U.S. Government and investment grade corporate bonds. Many of the world's bonds are issued outside of the U.S.
- *Limited Interest Rate Exposure:* Strategies exhibit lower interest rate exposures through the utilization of active duration management, hedging strategies, relative value trades, cash, or derivatives.
- *Diversification Benefits:* Historically, offered low correlation to other fixed income asset classes and global equities.

Cons:

- *Credit risk*: Potential elevated allocations to credit increases default risk and correlations to equity portfolios.
- *Concentration:* Portfolios are structured to be dynamic, tactical, and flexible. Because of this, portfolios may result in concentrated single sector or market exposures depending on prevailing market conditions.
- *Foreign exchange:* Global in nature, these portfolios will oscillate between dollar denominated and non-dollar securities and currency positions. This may result in additional volatility depending on exchange rate movements.

Highest Correlation:

HY Bonds
Broad Real Assets
Global Infrastructure

Lowest Correlation:

Foreign Bonds
Commodity Futures
Municipal Bonds

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Large Cap U.S. Stocks

Stocks with market capitalizations greater than $15 Billion. Large cap stocks represents the vast majority of the total U.S. equity market.

10-Year Forecasts

Annual Return	Annual Risk
6.5%	16.6%

Historical Returns as of 12/31/23

S&P 500 TR USD

	1 Year	3 Year	5 Year	10 Year	15 Year
Annualized Total Returns	26.3%	10.0%	15.7%	12.0%	14.0%
Annualized Standard Deviation	14.7%	17.5%	18.5%	15.2%	15.4%

Pros:
- *Large and Liquid Market:* U.S. large cap stocks represent the largest and most liquid segment of the global equity market.
- *Long Historical Data Set*: The S&P 500 Index performance history dates back to January 1, 1926.
- *Less Volatility:* Lower long-term volatility than mid cap, small cap, or foreign equity markets.

Cons:
- *Risk:* Subject to equity risk.
- *Lower Risk Premium:* Less risk, but potentially less long-term return than mid cap, small cap, or emerging market equities.
- *Concentration:* Some large cap benchmarks (S&P 500 Index and Russell 1000 Growth Index) have become increasingly more concentrated with 5-7 stocks driving most of the return, making it challenging for active managers on a relative performance basis.

Highest Correlation:

U.S. All Cap
U.S. Mid Cap
Global Equity

Lowest Correlation:

Foreign Bonds
TIPS
Municipal Bonds

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Mid Cap U.S. Stocks

Stocks between $3 and $15 billion in market capitalization.

10-Year Forecasts

Annual Return	Annual Risk
6.4%	18.4%

Historical Returns as of 12/31/23

Russell Mid Cap TR USD

	1 Year	3 Year	5 Year	10 Year	15 Year
Annualized Total Returns	17.2%	5.9%	12.7%	9.4%	13.6%
Annualized Standard Deviation	20.1%	19.4%	21.5%	17.2%	17.5%

Pros:

- *Risk Premium:* Offers a potential risk-premium over large cap stocks.
- *Higher Growth:* Smaller companies can grow earnings faster than larger companies.
- *Less Volatility:* Lower long-term volatility than small cap stocks.

Cons:

- *Risk:* Higher volatility than large cap stocks.
- *Diversification:* High correlation to both large cap and small cap stocks. Mid cap has a very high correlation to a 60/40 large & small cap mix.
- *Arbitrary Classification:* Arbitrary divide between "smaller" large cap and "larger" mid cap stocks. Conflicting definitions of mid-small cap barrier.

Highest Correlation:

U.S. All Cap
U.S. Large Cap
U.S. Small Cap

Lowest Correlation:

Foreign Bonds
Municipal Bonds
TIPS

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Small Cap U.S. Stocks

Stocks with market capitalizations of $3 billion or less.

10-Year Forecasts

Annual Return	Annual Risk
6.0%	21.3%

Historical Returns as of 12/31/23

Russell 2000 TR USD

	1 Year	3 Year	5 Year	10 Year	15 Year
Annualized Total Returns	16.9%	2.2%	10.0%	7.2%	11.3%
Annualized Standard Deviation	24.2%	21.4%	24.2%	20.2%	20.5%

Pros:
- *Risk Premium:* Offers a potential risk-premium over large and mid cap stocks.
- *Higher Growth:* Smaller companies can grow earnings faster than larger companies.
- *Upside:* Virtually all large cap stocks started as small cap stocks at one time in their history.

Cons:
- *Risk:* Higher volatility than large cap and mid cap stocks.
- *Liquidity/Opportunity Set:* Smaller capitalization stocks have less liquidity and marketability. Access to quality small cap managers is often constrained.

Highest Correlation:

U.S. Mid Cap
U.S. All Cap
U.S. Large Cap

Lowest Correlation:

Foreign Bonds
Municipal Bonds
TIPS

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International Developed Equity

Stocks of companies located outside of the U.S. in developed countries. Countries include Japan, the United Kingdom, France, Germany, Australia, Austria, Belgium, Denmark, Finland, Hong Kong, Ireland, Italy, Israel, the Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, and Switzerland. Canada is also considered an international developed market but is not included in the MSCI EAFE Index.

10-Year Forecasts

Annual Return	Annual Risk
8.2%	21.7%

Historical Returns as of 12/31/23

MSCI EAFE GR USD

	1 Year	3 Year	5 Year	10 Year	15 Year
Annualized Total Returns	18.9%	4.5%	8.7%	4.8%	7.4%
Annualized Standard Deviation	16.9%	16.8%	18.1%	15.2%	16.8%

Pros:

- *Large Universe:* Consists of publicly traded companies in developed countries domiciled outside of the U.S. Many of the best companies in the world are located outside of the U.S.
- *Diversification*: Higher correlation to U.S. equity markets in recent years, but still low enough to provide diversification benefits.
- *Currency Diversification*: Add diversification through foreign currency exposure (away from the U.S. dollar).

Cons:

- *Equity Risk:* Subject to global economic/financial conditions.
- *Currency Risk:* Subject to currency risk as investment returns are translated back into U.S. dollars.
- *Political, Financial, Currency, and Regulatory Risks*: Each country or region has its own political, financial, currency and regulatory risks.
- *Relative Performance:* Can experience prolonged periods of out- or underperformance relative to U.S. equities. A strong U.S. Dollar can be a major headwind for performance relative to U.S. equities.

Highest Correlation:

Global Equity
Global Infrastructure
EM Equity

Lowest Correlation:

Municipal Bonds
US Bonds
TIPS

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Emerging Markets Equity

Stocks of companies located outside of the U.S. in developing countries. Emerging markets countries are nations with social or business activity in the process of rapid growth and industrialization. Emerging market countries in the MSCI Emerging Markets index include China, Brazil, South Korea, Taiwan, South Africa, India, Mexico, Israel, Malaysia, Chile, Turkey, Thailand, Poland, Hungary, Greece, Colombia, the Czech Republic, Egypt, the Philippines, Argentina, Indonesia, Kuwait, Peru, and Saudi Arabia.

10-Year Forecasts

Annual Return	Annual Risk
10.1%	28.4%

Historical Returns as of 12/31/23

MSCI EM GR USD

	1 Year	3 Year	5 Year	10 Year	15 Year
Annualized Total Returns	10.3%	-4.7%	4.1%	3.0%	6.9%
Annualized Standard Deviation	18.1%	17.4%	19.2%	17.2%	19.2%

Pros:
- *Higher Return Potential:* Emerging economies may exhibit higher GDP growth than developed markets.
- *Diversification:* Diversification benefits, particularly if measured over longer holding periods (decades).
- *Currency:* Provides diversification through foreign currency exposure (away from the U.S. dollar).
- *Large Opportunity Set:* The universe includes thousands of companies and contains many world class companies.

Cons:
- *Volatility*: Opportunity for high returns comes with increased risk.
- *Sensitivity to Extremes*: More sensitivity to global economic crisis. Correlations with other risky assets rise during periods of extreme stress.
- *Sensitivity to Capital Flows:* Capital flows into and out of the asset class can cause heightened volatility.
- *Political, Financial, Currency, and Regulatory Risks*: Emerging market countries have greater political, financial, currency and regulatory instability than developed markets.
- *Increased Governance Risk:* Companies in emerging markets sometimes have governance structures that are less favorable to minority investors and a lack of transparency can also be an issue for investors.

Highest Correlation:

Global Equity
EM Bonds
International Equity

Lowest Correlation:

U.S. Bonds
Municipal Bonds
Foreign Bonds

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Real Estate Investment Trusts

Real Estate Investment Trusts (or REITs) is a tax designation for a companies investing in real estate that reduces or eliminates corporate income taxes. In return for the favorable tax treatment, REITs are required to distribute 90% of their (taxable) income to investors. REITs can be publicly or privately held. Public REITs may be listed on public stock exchanges like shares of common stock in other firms.

10-Year Forecasts

Annual Return	Annual Risk
7.0%	18.8%

Historical Returns as of 12/31/23

FTSE Nareit All Equity REITs TR USD

	1 Year	3 Year	5 Year	10 Year	15 Year
Annualized Total Returns	11.4%	5.7%	7.6%	8.0%	10.9%
Annualized Standard Deviation	22.5%	21.4%	20.7%	17.2%	20.5%

Pros:
- *Dividend Yield*: While an equity asset class, dividend yields have historically exceeded other equity classes.
- *Diversification Benefits*: Have often offered relatively low correlation to both stocks and bonds.

Cons:
- *Volatility*: Relatively high volatility.
- *Heavy Reliance on Credit:* REITs are unique in their heavy reliance on the credit markets, subjecting them to added risk in difficult credit environments.
- *Fat Tails*: Relatively high fixed cost businesses coupled with leverage make REITs vulnerable to extreme events (or fat left tails).

Highest Correlation:

Broad Real Assets
Global Infrastructure
U.S. Mid Cap

Lowest Correlation:

Foreign Bonds
Municipal Bonds
U.S. Bonds

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Broad Real Assets

A real asset is a value-generating, physical/tangible asset that has intrinsic value in and of itself. Examples of real assets include land, metals, real estate, infrastructure and commodities. Diversified real asset portfolios strategically and tactically allocate among the various real asset categories, with the goal of providing investors with absolute return, a hedge against rising inflation, and low correlation to more traditional investments.

10-Year Forecasts

Annual Return	Annual Risk
7.5%	11.8%

Historical Returns as of 12/31/23

S&P Real Asset TR USD

	1 Year	3 Year	5 Year	10 Year	15 Year
Annualized Total Returns	7.8%	3.9%	5.9%	3.9%	6.9%
Annualized Standard Deviation	13.2%	12.6%	14.0%	11.1%	11.2%

Pros:

- *Hedge against rising inflation:* Due to their inherent physical nature, real assets provide a hedge against rising levels of inflation, especially unexpected inflation. Additionally, many real asset securities have cash flows and revenue streams that are directly linked to CPI.
- *Diversification:* Real assets have low correlations with traditional asset classes, such as stocks and bonds.
- *Alternative Income:* Select areas, such as Real Estate and Infrastructure, often have an attractive income component that helps to mitigate volatility.

Cons:

- *Short history:* Diversified Real Assets are a relatively new asset class. While many of the underlying components themselves have longer track records, others, such as TIPS (late 1990's) and MLPs (early 1990's) remain limited.
- *Exposure to super-cycles:* The more tangible real asset categories (direct commodities, natural resources) have historically gone through super-cycles. This can result in lower returns for extended periods when inflation is subdued. This risk is mitigated through diversified portfolios' exposure to equities, which should mitigate prolonged periods of muted returns.
- *Unique Risk Exposures:* Real assets may be more heavily exposed to geopolitical, weather-related, and regulatory risks. These risks can often be sudden and unavoidable.
- *Heterogeneity:* Due to the breadth of the investable universe with multiple underlying categories, real asset portfolios can look quite different from another. This can create challenges in benchmarking and in comparing portfolios.

Broad Real Assets is 20% REITS, 20% Global Infrastructure, 20% Commodities, 20% US Bonds, 15% Corp High Yield, 5% TIPS. ***Any forecast represent median expectations and actual returns, volatilities and correlations will differ from forecasts. Please see Fiducient Advisors' most recent 10-Year Capital Market Forecasts white paper for additional information.*** *Use of Indices and Benchmark Return Indices cannot be invested in directly. Index performance is reported gross of fees and expenses and assumes the reinvestment of dividends and capital gains. January 31, 2023 Ten –Year Forecasted CMAs. Historical mix return calculations assume a weighted average excess return assumption of 0.5% with a Fiducient Advisors' hypothetical fee of 0.25%. Past performance does not indicate future performance and there is a possibility of a loss. For additional information on forecast methodologies, please speak with your advisor. Please see Index Proxy Summary slide at the end of this presentation for summary of indexes used to represent each asset class. Please see the Frontier Engineer Hypothetical Performance Disclosures at the end of the presentation for additional information.*

Historical Annual Total Return

Annualized net returns as of 11/30/2023	Fixed Income	Equity	Real Assets	Alternatives	Past 3 Months (Not Annualized)	1-Year Return	3-Year Return	5-Year Return	7-Year Return	10-Year Return	15-Year Return	20-Year Return	25-Year Return	30-Year Return	35.92-Year Return
Current Mix (A)	25%	69%	6%	1%	0.9%	8.5%	4.1%	7.4%	7.9%	7.0%	9.7%	7.7%	7.0%	8.0%	8.9%
Observation Mix (A)	27%	69%	4%	1%	0.9%	8.3%	3.8%	7.3%	7.8%	6.9%	9.5%	7.6%	6.9%	7.9%	8.8%
Observation Mix (B)	35%	61%	4%	1%	0.8%	7.5%	3.0%	6.7%	7.1%	6.4%	8.9%	7.2%	6.7%	7.7%	8.6%
Observation Mix (C)	27%	69%	4%	1%	0.9%	8.2%	3.8%	7.3%	7.8%	6.9%	9.5%	7.6%	6.9%	7.9%	8.9%
Cash	100%				1.4%	5.1%	2.1%	1.9%	1.7%	1.2%	0.8%	1.4%	1.8%	2.4%	3.0%
TIPS	100%				0.1%	0.1%	-1.5%	2.7%	2.1%	2.0%	3.6%	3.5%	4.7%	4.7%	5.7%
US Bond	100%				0.3%	1.2%	-4.5%	0.7%	0.8%	1.4%	2.7%	3.0%	3.7%	4.3%	5.3%
US Bonds - Dynamic	100%				1.5%	5.5%	0.2%	2.4%	2.5%	2.6%	4.4%	3.8%	4.0%	4.6%	5.5%
For. Dev. Bond	100%				0.9%	1.3%	-6.9%	-1.4%	-0.3%	0.2%	1.4%	2.4%	2.9%	3.9%	4.6%
Global Bonds	100%				0.8%	2.0%	-6.4%	-0.7%	0.0%	-0.1%	1.7%	2.4%	2.9%	3.7%	4.9%
HY Bond	100%				2.1%	8.7%	1.4%	4.1%	4.3%	4.3%	9.4%	6.5%	6.2%	6.6%	7.6%
EM Bond	100%				-3.9%	6.0%	-4.7%	-0.3%	1.0%	-0.8%	2.8%	4.4%	6.2%	6.5%	7.5%
Global Equity		100%			1.7%	12.6%	6.2%	9.6%	10.2%	8.2%	10.7%	8.2%	6.4%	7.8%	8.0%
US Equity (AC)		100%			1.4%	12.6%	8.3%	11.8%	12.3%	11.2%	13.6%	9.6%	7.8%	9.9%	10.8%
US Equity (LC)		100%			1.7%	13.8%	9.8%	12.5%	13.0%	11.8%	13.7%	9.7%	7.6%	10.0%	10.8%
US Equity (MC)		100%			-0.5%	2.9%	4.9%	8.7%	9.1%	8.9%	13.3%	9.6%	9.2%	10.5%	11.4%
US Equity (SC)		100%			-4.4%	-2.6%	1.1%	4.8%	6.0%	6.1%	10.9%	7.6%	7.7%	8.3%	9.4%
Non-US Equity (ACWI)		100%			1.3%	9.8%	2.2%	5.6%	6.5%	3.9%	7.3%	6.3%	5.2%	5.8%	5.8%
Int'l Dev. Equity		100%			1.3%	13.0%	4.3%	6.5%	7.1%	4.4%	7.5%	6.2%	4.8%	5.7%	5.6%
EM Equity		100%			1.2%	4.6%	-3.7%	2.7%	4.8%	2.5%	7.2%	7.4%	7.6%	5.2%	9.4%
Real Estate			100%		0.7%	-2.8%	3.6%	4.1%	5.4%	7.1%	11.4%	8.0%	9.0%	9.2%	9.7%
Broad Real Assets			100%		1.1%	1.5%	3.4%	4.3%	4.5%	3.5%	6.9%	6.5%	8.1%	7.4%	6.5%
Marketable Alternatives				100%	0.4%	4.0%	2.6%	4.3%	3.9%	3.1%	3.5%	3.3%	4.4%	4.8%	6.8%
Private Equity				100%	0.0%	1.1%	9.4%	13.7%	14.1%	13.1%	13.1%	13.2%	13.3%	15.2%	14.7%

[1]The expected one in a hundred worst case calendar year return based on normally distributed capital market assumptions. Greater losses are possible (1% expected likelihood).
[2]The expected one in a hundred worst case calendar year return based on non-normally distributed capital market assumptions (factoring in skewness & kurtosis). Greater losses are possible (1% expected likelihood).
Historical Returns and Risk Metrics for each Mix represent back-tested calculations developed with the benefit of hindsight. Return calculations use an asset-weighted methodology based on the target asset allocation of each mix and the total return of index proxies used to represent each asset class and are net of fees. Historical returns are hypothetical and do not represent returns earned by a client. It is not possible to invest in an index. Please see the Frontier Engineer Hypothetical Performance Disclosures at the end of the presentation for additional information, including index proxies used to represent each asset class. Please ask for a copy of Fiducient Advisors' white paper titled 10-Year Capital Market Forecasts. Past performance does not indicate future performance and it is possible to lose money when investing.

Calendar Year Total Return

Calendar Net Year Returns	Fixed Income	Equity	Real Assets	Alternatives	YTD 11/30/2023	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Current Mix (A)	25%	69%	6%	1%	12%	-16%	16%	13%	23%	-6%	18%	8%	0%	8%	18%	14%	-1%	14%	29%	-31%
Observation Mix (A)	27%	69%	4%	1%	12%	-16%	15%	13%	22%	-6%	17%	9%	0%	7%	18%	14%	-1%	14%	28%	-30%
Observation Mix (B)	35%	61%	4%	1%	10%	-15%	13%	13%	21%	-5%	16%	8%	0%	7%	15%	13%	0%	14%	26%	-27%
Observation Mix (C)	27%	69%	4%	1%	11%	-15%	15%	13%	22%	-6%	18%	9%	0%	7%	18%	14%	-1%	14%	28%	-30%
Cash	100%				5%	2%	0%	1%	2%	2%	1%	0%	0%	0%	0%	0%	0%	0%	0%	2%
TIPS	100%				1%	-12%	6%	11%	8%	-1%	3%	5%	-1%	4%	-9%	7%	14%	6%	11%	-2%
US Bond	100%				2%	-13%	-2%	8%	9%	0%	4%	3%	1%	6%	-2%	4%	8%	7%	6%	5%
US Bonds - Dynamic	100%				6%	-7%	1%	5%	8%	1%	4%	7%	-1%	3%	2%	7%	4%	7%	19%	-7%
For. Dev. Bond	100%				3%	-18%	-6%	8%	7%	1%	6%	3%	-2%	4%	-2%	4%	5%	4%	3%	9%
Global Bonds	100%				1%	-16%	-5%	9%	7%	-1%	7%	2%	-3%	1%	-3%	4%	6%	6%	7%	5%
HY Bond	100%				9%	-11%	5%	7%	14%	-2%	8%	17%	-4%	2%	7%	16%	5%	15%	58%	-26%
EM Bond	100%				4%	-12%	-9%	3%	13%	-6%	15%	10%	-15%	-6%	-9%	17%	-2%	16%	22%	-5%
Global Equity		100%			17%	-18%	19%	17%	27%	-9%	25%	8%	-2%	5%	23%	17%	-7%	13%	35%	-42%
US Equity (AC)		100%			20%	-19%	26%	21%	31%	-5%	21%	13%	0%	13%	34%	16%	1%	17%	28%	-37%
US Equity (LC)		100%			21%	-18%	29%	18%	31%	-4%	22%	12%	1%	14%	32%	16%	2%	15%	26%	-37%
US Equity (MC)		100%			9%	-17%	23%	17%	31%	-9%	19%	14%	-2%	13%	35%	17%	-2%	25%	40%	-41%
US Equity (SC)		100%			4%	-20%	15%	20%	26%	-11%	15%	21%	-4%	5%	39%	16%	-4%	27%	27%	-34%
Non-US Equity (ACWI)		100%			11%	-16%	8%	11%	22%	-14%	28%	5%	-5%	-3%	16%	17%	-13%	12%	42%	-45%
Int'l Dev. Equity		100%			13%	-14%	12%	8%	23%	-13%	26%	2%	0%	-4%	23%	18%	-12%	8%	32%	-43%
EM Equity		100%			6%	-20%	-2%	19%	19%	-14%	38%	12%	-15%	-2%	-2%	19%	-18%	19%	79%	-53%
Real Estate			100%		2%	-25%	41%	-5%	29%	-4%	9%	9%	3%	28%	3%	20%	8%	28%	28%	-38%
Broad Real Assets			100%		3%	-10%	15%	1%	17%	-6%	11%	11%	-10%	5%	4%	14%	3%	15%	33%	-28%
Marketable Alternatives				100%	4%	-5%	6%	11%	8%	-4%	8%	1%	0%	3%	9%	5%	-6%	6%	11%	-21%
Private Equity				100%	2%	-12%	40%	32%	16%	13%	16%	9%	8%	15%	23%	12%	12%	18%	10%	-20%

Calendar Net Year Returns	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988
Current Mix (A)	8%	18%	10%	15%	28%	-10%	-6%	-4%	19%	13%	16%	14%	22%	1%	20%	5%	26%	-8%	23%	20%
Observation Mix (A)	8%	17%	9%	14%	28%	-10%	-6%	-4%	19%	13%	16%	14%	22%	1%	20%	5%	27%	-7%	23%	19%
Observation Mix (B)	8%	16%	9%	13%	25%	-8%	-4%	-2%	16%	13%	16%	13%	22%	1%	19%	6%	26%	-5%	22%	18%
Observation Mix (C)	8%	17%	9%	14%	28%	-10%	-5%	-4%	19%	13%	16%	14%	23%	1%	20%	6%	27%	-6%	24%	19%
Cash	5%	5%	3%	1%	1%	2%	4%	6%	5%	5%	5%	5%	6%	4%	3%	4%	6%	8%	9%	7%
TIPS	12%	0%	3%	8%	8%	17%	8%	13%	2%	4%	3%	4%	18%	-3%	10%	7%	16%	9%	15%	8%
US Bond	7%	4%	2%	4%	4%	10%	8%	12%	-1%	9%	10%	4%	18%	-3%	10%	7%	16%	9%	15%	8%
US Bonds - Dynamic	4%	7%	3%	6%	10%	3%	6%	3%	3%	6%	9%	8%	14%	0%	10%	9%	21%	1%	15%	8%
For. Dev. Bond	8%	5%	-2%	9%	10%	14%	1%	4%	-1%	15%	3%	8%	19%	1%	14%	6%	14%	9%	0%	6%
Global Bonds	9%	7%	-4%	9%	13%	17%	2%	3%	-5%	14%	4%	5%	20%	0%	11%	6%	16%	11%	15%	8%
HY Bond	2%	12%	3%	11%	29%	-1%	5%	-6%	2%	2%	13%	11%	19%	-1%	17%	16%	46%	-10%	1%	13%
EM Bond	18%	15%	6%	23%	17%	14%	10%	13%	20%	-8%	11%	38%	27%	-19%	17%	16%	46%	-10%	1%	13%
Global Equity	12%	22%	11%	16%	35%	-19%	-16%	-14%	27%	22%	15%	13%	19%	5%	25%	-4%	20%	-16%	18%	24%
US Equity (AC)	5%	16%	6%	12%	31%	-22%	-11%	-7%	21%	24%	32%	22%	37%	0%	11%	10%	34%	-5%	29%	18%
US Equity (LC)	5%	16%	5%	11%	29%	-22%	-12%	-9%	21%	29%	33%	23%	38%	1%	10%	8%	30%	-3%	32%	17%
US Equity (MC)	6%	15%	13%	20%	40%	-16%	-6%	8%	18%	10%	29%	19%	34%	-2%	14%	16%	42%	-11%	26%	20%
US Equity (SC)	-2%	18%	5%	18%	47%	-20%	2%	-3%	21%	-3%	22%	16%	28%	-2%	19%	18%	46%	-19%	16%	25%
Non-US Equity (ACWI)	17%	27%	17%	21%	41%	-15%	-19%	-15%	31%	14%	2%	7%	10%	7%	35%	-11%	14%	-23%	12%	28%
Int'l Dev. Equity	12%	27%	14%	21%	39%	-16%	-21%	-14%	27%	20%	2%	6%	12%	8%	33%	-12%	12%	-23%	11%	29%
EM Equity	40%	33%	35%	26%	56%	-6%	-2%	-31%	66%	-25%	-12%	6%	-5%	-7%	75%	11%	60%	-11%	65%	40%
Real Estate	-16%	35%	12%	32%	37%	4%	14%	26%	-5%	-18%	20%	35%	15%	3%	20%	15%	36%	-15%	9%	13%
Broad Real Assets	11%	23%	10%	20%	26%	25%	-3%	28%	10%	-14%	2%	14%	14%	4%	4%	4%	4%	-6%	2%	3%
Marketable Alternatives	10%	10%	7%	7%	12%	1%	3%	4%	26%	-5%	16%	14%	11%	-3%	26%	12%	14%	18%	23%	19%
Private Equity	18%	25%	21%	22%	14%	-16%	-21%	10%	125%	21%	32%	33%	32%	14%	23%	14%	14%	4%	9%	9%

Historical Returns for each Mix based on back-tested return calculations developed with the benefit of hindsight. Return calculations use an asset-weighted methodology based on the target asset allocation of each mix and the total return of index proxies used to represent each asset class and are net of fees. Historical returns used are hypothetical and do not represent returns earned by a client. It is not possible to invest in an index. Please see the Frontier Engineer Hypothetical Performance Disclosures at the end of the presentation for additional information, including index proxies used to represent each asset class. For additional information on forecast methodologies, please ask for a copy of Fiducient Advisors' white paper titled 10-Year Capital Market Forecasts. Past performance does not indicate future performance and it is possible to lose money when investing.

Capital Market Assumptions

Return & Risk Assumptions (Forecasts)	Arithmetic Return	Geometric Return	Standard Deviation	Skewness	Kurtosis
US Bond	5.9%	5.7%	7.3%	-0.50	1.68
US Bonds - Dynamic	6.7%	6.5%	6.4%	-0.96	6.34
US Equity (LC)	7.9%	6.5%	16.6%	-0.55	0.79
US Equity (MC)	8.1%	6.4%	18.4%	-0.67	2.02
US Equity (SC)	8.3%	6.0%	21.3%	-0.44	1.10
Int'l Dev. Equity	10.6%	8.2%	21.7%	-0.52	1.25
EM Equity	14.2%	10.1%	28.4%	-0.61	1.96
Real Estate	8.8%	7.0%	18.8%	-0.70	6.53
Private Real Estate	8.4%	8.0%	9.0%	-0.75	6.78
Private Equity	12.2%	9.5%	23.2%	0.00	0.00

Correlation Assumptions (Forecasts)	US Bond	US Bonds - Dynamic	US Equity (LC)	US Equity (MC)	US Equity (SC)	Int'l Dev. Equity	EM Equity	Real Estate	Private Real Estate	Private Equity
US Bond	1.00	0.57	0.22	0.22	0.13	0.19	0.11	0.23	0.00	-0.08
US Bonds - Dynamic	0.57	1.00	0.61	0.66	0.59	0.56	0.57	0.61	0.00	0.18
US Equity (LC)	0.22	0.61	1.00	0.94	0.84	0.70	0.66	0.61	0.00	0.36
US Equity (MC)	0.22	0.66	0.94	1.00	0.94	0.69	0.69	0.68	0.00	0.37
US Equity (SC)	0.13	0.59	0.84	0.94	1.00	0.63	0.66	0.66	0.00	0.36
Int'l Dev. Equity	0.19	0.56	0.70	0.69	0.63	1.00	0.71	0.52	0.00	0.32
EM Equity	0.11	0.57	0.66	0.69	0.66	0.71	1.00	0.46	0.00	0.30
Real Estate	0.23	0.61	0.61	0.68	0.66	0.52	0.46	1.00	0.00	0.19
Private Real Estate	0.23	0.61	0.61	0.68	0.66	0.52	0.46	1.00	0.00	0.19
Private Equity	-0.08	0.18	0.36	0.37	0.36	0.32	0.30	0.19	0.00	1.00

October 31, 2023 Ten-Year Forecasted CMAs

*Historical mix return calculations assume a weighted average excess return assumption of 0.5% with a Fiducient Advisors' hypothetical fee of 0.25%.

Indices for Past Return & Risk Metrics

Indices used to generate historical risk and return metrics	Most Recent Index	Index Dates	Linked Index 1	Index Dates	Linked Index 2	Index Dates	Linked Index 2	Index Dates
US Bond	Bloomberg US Agg Bond TR USD	11/23 - 1/79	N.A.	N.A. - N.A.	N.A.	N.A. - N.A.	N.A.	N.A. - N.A.
US Bonds - Dynamic	*Custom Blend of Indices	11/23 - 2/90	Bloomberg US Agg Bond TR USD	1/90 - 1/79	N.A.	N.A. - N.A.	N.A.	N.A. - N.A.
US Equity (LC)	S&P 500 TR USD	11/23 - 1/79	N.A.	N.A. - N.A.	N.A.	N.A. - N.A.	N.A.	N.A. - N.A.
US Equity (MC)	Russell Mid Cap TR USD	11/23 - 1/79	N.A.	N.A. - N.A.	N.A.	N.A. - N.A.	N.A.	N.A. - N.A.
US Equity (SC)	Russell 2000 TR USD	11/23 - 1/79	N.A.	N.A. - N.A.	N.A.	N.A. - N.A.	N.A.	N.A. - N.A.
Int'l Dev. Equity	MSCI EAFE GR USD	11/23 - 1/79	N.A.	N.A. - N.A.	N.A.	N.A. - N.A.	N.A.	N.A. - N.A.
EM Equity	MSCI EM GR USD	11/23 - 1/88	MSCI EAFE GR USD	12/87 - 1/79	N.A.	N.A. - N.A.	N.A.	N.A. - N.A.
Real Estate	FTSE Nareit All Equity REITs TR USD	11/23 - 1/79	N.A.	N.A. - N.A.	N.A.	N.A. - N.A.	N.A.	N.A. - N.A.
Private Real Estate	Wilshire US RESI TR USD	11/23 - 1/79	N.A.	N.A. - N.A.	N.A.	N.A. - N.A.	N.A.	N.A. - N.A.
Private Equity	Cambridge PE 67% Buyout vs. 33% Venture	11/23 - 4/86	Russell 2000 TR USD	3/86 - 1/79	N.A.	N.A. - N.A.	N.A.	N.A. - N.A.

*US Bonds - Dynamic Index - 1/3 Bloomberg Gbl Agg Ex USD TR Hdg USD, 1/3 FTSE Treasury Bill 3 Mon USD & 1/3 Bloomberg US Corporate High Yield TR USD

Note: Private Equity Index is frequently 3-6 months behind the other indices. For historical return calculation purposes, it is given 0% returns during the most recent period where gaps may exist. Past performance, actual or hypothetical, is no guarantee of future results and there is a possibility of a loss. Please see Frontier Engineer Hypothetical Performance Disclosures at the end of the presentation for additional information, including index proxies used to represent each asset class.

Frontier Engineer® Hypothetical Performance Disclosures

Disclosure

The historical performance information derived from the Frontier Engineer and used or presented in charts, tables, or graphs represent simulated historical performance, which has been derived by retroactively applying an asset allocation modeling process in its most recently developed form with its most recently derived ten-year (forward-looking) capital market assumptions. Such historical return simulations (or back testing) was performed by simulating the combination of actual index returns for the historical period with a buy and hold strategy effective January 1, 1988 through the most recently available month-end date with simulated rebalancing occurring every month-end (with the reinvestment of dividends and capital gains from each index).

Back tested performance is hypothetical and does not reflect actual trades or actual client performance. As with all models, there are inherent limitations which are derived from the retroactive application developed with the benefit of hindsight, including the risk that certain factors such as material economic and market conditions could have contributed to materially different (either higher or lower) performance results than those depicted, or that certain material factors may have been included or excluded from consideration. As such, actual results during the applicable back tested period would have been different than those depicted.

The asset allocation modeling process currently used was initially developed in 2002, and was not offered as a strategy prior to that time. The output of a forward-looking model (or process) is a representation of allocation percentages among specific asset classes. Clients cannot invest directly in a target allocation, but rather, in underlying securities within designated asset classes. Advisor may change its models from time to time, and regularly updates its model as additional capital market assumption information becomes available or to increase or decrease relative weightings or emphasis on certain factors. Consequently, the Advisor may choose to deviate from a stated model over time as the model itself is revised, which could have a materially positive or negative impact on performance.

During the period represented, numerous modelling changes were made, including the regular changes in (ten-year) forward-looking expected returns, expected volatilities, expected non-normal return distribution assumptions, as well as tracking-error assumptions and risk budgets. Furthermore, such assumptions can be modified client-by-client depending on certain preferences, priorities, constraints or unique considerations applicable to each client.

Other economic and market factors may have impacted decision-making when using the model to manage client funds, including the list of approved asset classes by a client or client type as well as any client-directed or Advisor implemented constraints.

All investments bear the risk of loss, including the loss of principal. Past performance, actual or hypothetical, is no guarantee of future results.

The hypothetical annual Fiducient Advisors' fee is divided by 12 and subtracted from the historical monthly (index) returns. The hypothetical excess return assumption is divided by 12 and added to the historical monthly (index) returns. Furthermore, for forecasted total portfolio (index-based) annual returns based on capital market assumptions, the annual Fiducient Advisors' fee assumption is subtracted from the hypothetical annual manager excess return assumption. Additional information on advisory fees charged by Fiducient Advisors are described in Part 2 of the Form ADV.

Disclosure

INDEX DEFINITIONS

FTSE Treasury Bill 3 Month measures return equivalents of yield averages and are not marked to market. It is an average of the last three three-month Treasury bill month-end rates.
Bloomberg Capital US Treasury Inflation Protected Securities Index consists of Inflation-Protection securities issued by the U.S. Treasury.
Bloomberg Muni 5 Year Index is the 5 year (4-6) component of the Municipal Bond index.
Bloomberg High Yield Municipal Bond Index covers the universe of fixed rate, non-investment grade debt.
Bloomberg U.S. Aggregate Index covers the U.S. investment grade fixed rate bond market, with index components for government and corporate securities, mortgage pass-through securities, and asset-backed securities.
FTSE World Government Bond Index (WGBI) (Unhedged) provides a broad benchmark for the global sovereign fixed income market by measuring the performance of fixed-rate, local currency, investment-grade sovereign debt from over 20 countries,
FTSE World Government Bond Index (WGBI) (Hedged) is designed to represent the FTSE WGBI without the impact of local currency exchange rate fluctuations.
Bloomberg US Corporate High Yield TR USD covers the universe of fixed rate, non-investment grade debt. Eurobonds and debt issues from countries designated as emerging markets (sovereign rating of Baa1/BBB+/BBB+ and below using the middle of Moody's, S&P, and Fitch) are excluded, but Canadian and global bonds (SEC registered) of issuers in non-EMG countries are included.
JP Morgan Government Bond Index-Emerging Market Index (GBI-EMI) is a comprehensive, global local emerging markets index, and consists of regularly traded, liquid fixed-rate, domestic currency government bonds to which international investors can gain exposure.
JPMorgan EMBI Global Diversified is an unmanaged, market-capitalization weighted, total-return index tracking the traded market for U.S.-dollar-denominated Brady bonds, Eurobonds, traded loans, and local market debt instruments issued by sovereign and quasi-sovereign entities.
MSCI ACWI is designed to represent performance of the full opportunity set of large- and mid-cap stocks across multiple developed and emerging markets, including cross-market tax incentives.
The S&P 500 is a capitalization-weighted index designed to measure performance of the broad domestic economy through changes in the aggregate market value of 500 stocks representing all major industries.
Russell 3000 is a market-cap-weighted index which consists of roughly 3,000 of the largest companies in the U.S. as determined by market capitalization. It represents nearly 98% of the investable U.S. equity market.
Russell Mid Cap measures the performance of the 800 smallest companies in the Russell 1000 Index.
Russell 2000 consists of the 2,000 smallest U.S. companies in the Russell 3000 index.
MSCI EAFE is an equity index which captures large and mid-cap representation across Developed Markets countries around the world, excluding the US and Canada. The index covers approximately 85% of the free float-adjusted market capitalization in each country.
MSCI Emerging Markets captures large and mid-cap representation across Emerging Markets countries. The index covers approximately 85% of the free-float adjusted market capitalization in each country
The Wilshire US Real Estate Securities Index (Wilshire US RESI) is comprised of publicly-traded real estate equity securities and designed to offer a market-based index that is more reflective of real estate held by pension funds.
Alerian MLP Index is a float adjusted, capitalization-weighted index, whose constituents represent approximately 85% of total float-adjusted market capitalization, is disseminated real-time on a price-return basis (AMZ) and on a total-return basis.
Bloomberg Commodity Index (BCI) is calculated on an excess return basis and reflects commodity futures price movements. The index rebalances annually weighted 2/3 by trading volume and 1/3 by world production and weight-caps are applied at the commodity, sector and group level for diversification.
Treasury Inflation-Protected Securities (TIPS) are Treasury bonds that are indexed to inflation to protect investors from the negative effects of rising prices. The principal value of TIPS rises as inflation rises.
HFRI Fund of Funds Composite is an equal-weighted index consisting of over 800 constituent hedge funds, including both domestic and offshore funds.
Cambridge Associates U.S. Private Equity Index (67% Buyout vs. 33% Venture) is based on data compiled from more than 1,200 institutional-quality buyout, growth equity, private equity energy, and mezzanine funds formed between 1986 and 2015.
HFN Hedge Fund Aggregate Average is an equal weighted average of all hedge funds and CTA/managed futures products reporting to the HFN Database. Constituents are aggregated from each of the HFN Strategy Specific Indices.
Goldman Sachs Commodity Index (GSCI) is a broadly diversified, unleveraged, long-only composite index of commodities that measures the performance of the commodity market.

Disclosure

Material Risk Disclosures

Fixed Income securities are subject to interest rate risks, the risk of default and liquidity risk. U.S. investors exposed to non-U.S. fixed income may also be subject to currency risk and fluctuations.

Cash may be subject to the loss of principal and over longer period of time may lose purchasing power due to inflation.
Domestic Equity can be volatile. The rise or fall in prices take place for a number of reasons including, but not limited to changes to underlying company conditions, sector or industry factors, or other macro events. These may happen quickly and unpredictably.

International Equity can be volatile. The rise or fall in prices take place for a number of reasons including, but not limited to changes to underlying company conditions, sector or industry impacts, or other macro events. These may happen quickly and unpredictably. International equity allocations may also be impact by currency and/or country specific risks which may result in lower liquidity in some markets.

Real Assets can be volatile and may include asset segments that may have greater volatility than investment in traditional equity securities. Such volatility could be influenced by a myriad of factors including, but not limited to overall market volatility, changes in interest rates, political and regulatory developments, or other exogenous events like weather or natural disaster.

Private Equity involves higher risk and is suitable only for sophisticated investors. Along with traditional equity market risks, private equity investments are also subject to higher fees, lower liquidity and the potential for leverage that may amplify volatility and/or the potential loss of capital.

Private Credit involves higher risk and is suitable only for sophisticated investors. These assets are subject to interest rate risks, the risk of default and limited liquidity. U.S. investors exposed to non-U.S. private credit may also be subject to currency risk and fluctuations.

Private Real Estate involves higher risk and is suitable only for sophisticated investors. Real estate assets can be volatile and may include unique risks to the asset class like leverage and/or industry, sector or geographical concentration. Declines in real estate value may take place for a number of reasons including, but are not limited to economic conditions, change in condition of the underlying property or defaults by the borrow.

Marketable Alternatives involves higher risk and is suitable only for sophisticated investors. Along with traditional market risks, marketable alternatives are also subject to higher fees, lower liquidity and the potential for leverage that may amplify volatility or the potential for loss of capital. Additionally, short selling involved certain risks including, but not limited to additional costs, and the potential for unlimited loss on certain short sale positions.

Burlington Employees’ Retirement System

Review of the June 30, 2023 WORK PAPER Actuarial Valuation

Steve Lemanski, FSA, FCA, MAAA, Enrolled Actuary
Partner | Vice President, Senior Consulting Actuary

Robert P. Lessard, ASA, FCA, MAAA, Enrolled Actuary
Consulting Actuary

February 12, 2024

USI CONSULTING GROUP | h&h hooker & holcombe

Agenda

- Purpose of the Valuation
- Summary of Results
- Funded Status
- Asset Information
- Funding Policy

Purpose of the Valuation

The ultimate cost of a pension plan is based primarily on the level of benefits promised by the plan. The pension fund's investment earnings serve to reduce the cost of plan benefits and expenses. Thus,

City's Ultimate cost = Benefits Paid + Expenses Incurred – Investment Return – Employee Contributions

- Actuarial Valuation utilizes an actuarial cost method to assign a portion of this "ultimate cost" to the budget year. The valuation does not determine the cost of the plan but is a tool used to determine the appropriate level of City contributions.
- Actuarially Determined Employer Contribution (ADEC) developed from the valuation is comprised of two components: amortization of unfunded liability (*currently 30-year "layered" amortization)* & normal cost (assignment of benefits "earned" for the budget year).

Summary of Results – Overview

- Funded Ratio (Assets divided by Actuarial Liability) is 66.9%, vs. 69.7% for 2022
- Plan's Funded Ratio compares with 76.1% in NASRA survey for FYE 2022
- Preliminary Actuarially Determined Employer Contribution (ADEC) is $14.969 M (FY 2024-25), vs. $13.057 M (FY 2023-24)
- Asset experience – +5.4% actuarial (5-year smoothed) return, vs. the 7.1% assumption (10.2% on a market value basis) : *ADEC impact : + $338K*
- Assumption changes – reflected experience study assumption changes and kept investment return assumption at 7.10% : *ADEC impact : + $53K*
- Other plan experience:
  - Salary increases : *ADEC impact : + $801K*
  - Retirements and mortality : *ADEC impact : + $379K*
  - New entrants : *ADEC impact : + $193K*
  - Expected increase in normal cost (continuing actives) : *ADEC impact: + $109K*

Assumption Discussion

- **Investment return** – BERS board previously approved scheduled reduction in this assumption from 7.50% to 7.00%, starting with the 2019 valuation. The assumption remains at 7.10% for the 2023 actuarial valuation. Median for CT public sector pension plans (USI/H&H survey based on FYE 2022 CAFRs) is 6.50% (average is 6.46% for all plans; 6.74% for plans with $50+ million in assets). *42% of plans in the USI/H&H survey lowered the investment return assumption from June 30, 2021 to June 30, 2022.* NASRA survey (November 2023) shows average assumption of 6.91% (median 7.00%) for large public sector pension funds.

- **Mortality projection scale** – There was *not* an annual mortality projection scale update published for 2023 by the Society of Actuaries. Mortality projection scale is used to estimate how life expectancies are expected to change in the future. This is used in conjunction with the underlying mortality table, which reflects estimated life expectancies today.

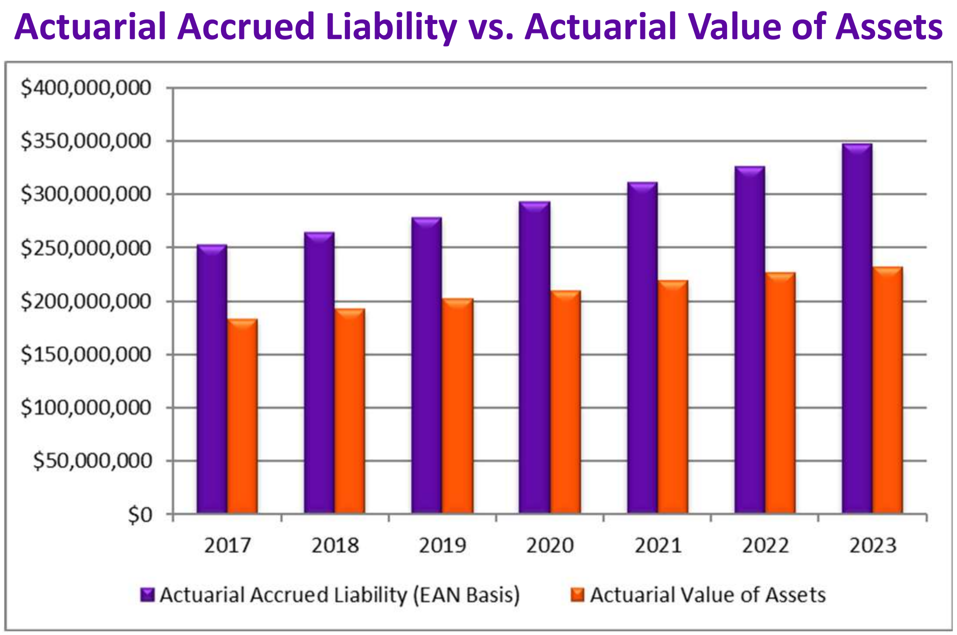
ADEC Comparison

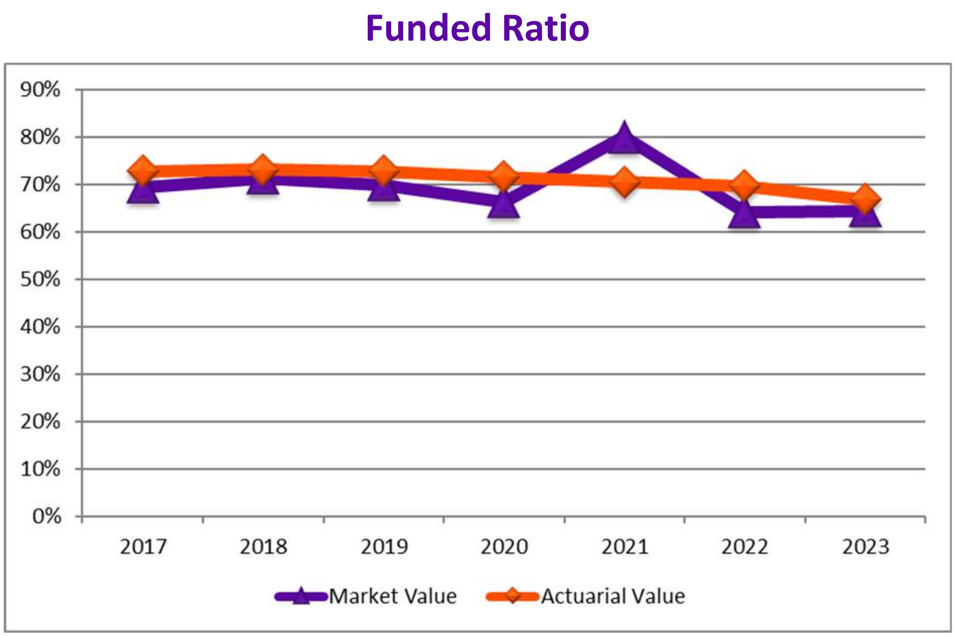
Development of ADEC (in $ millions)

	June 30, 2022 Valuation	June 30, 2023 Valuation			
Discount Rate	7.10%	7.10%	7.10%	7.10%	7.10%
Experience Study Assumptions	Before	Before	**After**	After	After
Amortization	Layered 30 Yrs	Layered 30 Yrs	Layered 30 Yrs	**20 Years**	**18 Years for Class A** **17 Years for Class B**
Actuarial Accrued Liability	$325.818	$344.059	$347.250	$347.250	$347.250
Actuarial Value of Assets	227.049	232.271	232.271	232.271	232.271
Unfunded Accrued Liability (UAL)	98.769	111.788	114.979	114.979	114.979
Funded Ratio	**69.7%**	**67.5%**	**66.9%**	**66.9%**	**66.9%**
Actuarially Determined Employer Contribution (ADEC)*					
City Normal Cost	3.672	4.256	4.030	4.030	4.030
Amortization of UAL	9.385	10.660	10.939	10.213	10.909
Total ADEC	**13.057**	**14.916**	**14.969**	**14.243**	**14.939**
Class A	*7.046*	*7.850*	*7.950*	*7.651*	*7.925*
Class B	*6.011*	*7.066*	*7.019*	*6.592*	*7.014*

Fiscal Year Ending June 30, 2024 for June 30, 2022 Valuation; Fiscal Year Ending June 30, 2025 for June 30, 2023 Valuation; Amounts Have Been Adjusted with Inflation

Funded Status – Trends





Funded Status – Breakdown by Class A & B

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Development of Unfunded Accrued Liability and Funded Ratio (in $ millions)

	June 30, 2023			June 30, 2022		
	Class A	Class B	Total	Class A	Class B	Total
Actuarial accrued liability for inactive members						
Retired, disabled and beneficiaries	$107.455	$105.885	$213.340	$105.401	$97.587	$202.988
Terminated vested members	2.909	11.735	14.644	3.459	12.696	16.155
Due refund of employee contributions only	0.272	1.455	1.727	0.310	1.168	1.478
Total	110.636	119.075	229.711	109.170	111.451	220.621
Actuarial accrued liability for active employees	51.892	65.647	117.539	44.101	61.096	105.197
Total actuarial accrued liability	162.528	184.722	347.250	153.271	172.547	325.818
Actuarial value of assets	103.910	128.361	232.271	100.004	127.045	227.049
Unfunded accrued liability	58.618	56.361	114.979	53.267	45.502	98.769
Funded ratio	63.9%	69.5%	66.9%	65.2%	73.6%	69.7%

Asset Information – FYE 2023 Reconciliation

Summary of Fund Activity		
	Market Value	**Actuarial Value**
1. Beginning value of assets June 30, 2022		
Trust assets	$209,424,802	$227,048,886
2. Contributions		
City contributions during year	11,254,693	11,254,693
Employee contributions during year	4,075,840	4,075,840
Total for plan year	15,330,533	15,330,533
3. Disbursements		
Benefit payments during year	21,384,228	21,384,228
Administrative expenses during year	722,335	722,335
Other disbursements	184,884	184,884
Total for plan year	22,291,447	22,291,447
4. Net investment return		
Interest and dividends	7,335,342	N/A
Realized and unrealized gain / (loss)	14,087,843	N/A
Expected return	N/A	14,634,713
Recognized gain / (loss)	N/A	(2,451,567)
Required adjustment due to corridor	N/A	0
Reversal of prior year required adjustment	N/A	0
Investment-related expenses	(232,835)	N/A
Total for plan year	21,190,350	12,183,146
5. Ending value of assets June 30, 2023		
Trust assets: (1) + (2) - (3) + (4)	223,654,238	232,271,118
6. Approximate rate of return	10.2%	5.4%

Actuarial vs. Market Value of Assets

Relationship of Actuarial Value to Market Value	
1. Market value 6/30/2023	$223,654,238
2. Gain / (loss) not recognized in actuarial value 6/30/2023	(8,616,880)
3. Preliminary actuarial value 6/30/2023: (1) - (2)	232,271,118
4. Preliminary actuarial value as a percentage of market value: (3) ÷ (1)	103.9%
5. Gain / (loss) recognized for corridor minimum / maximum	N/A
6. Actuarial value 6/30/2023 after corridor minimum / maximum: (3) + (5)	232,271,118
7. Actuarial value as a percentage of market value: (6) ÷ (1)	103.9%

Development of Market Value Gain / Loss for 2022-2023 Plan Year	
1. Market value 6/30/2022	$209,424,802
2. City contributions	11,254,693
3. Employee contributions	4,075,840
4. Benefit payments and other disbursements	21,569,112
5. Administrative expenses	722,335
6. Expected return at 7.10%	14,634,713
7. Expected value 6/30/2023: (1) + (2) + (3) - (4) - (5) + (6)	217,098,601
8. Market value 6/30/2023	223,654,238
9. Market value gain / (loss) for 2022-2023 plan year: (8) - (7)	6,555,637

Recognition of Gain / Loss in Actuarial Value

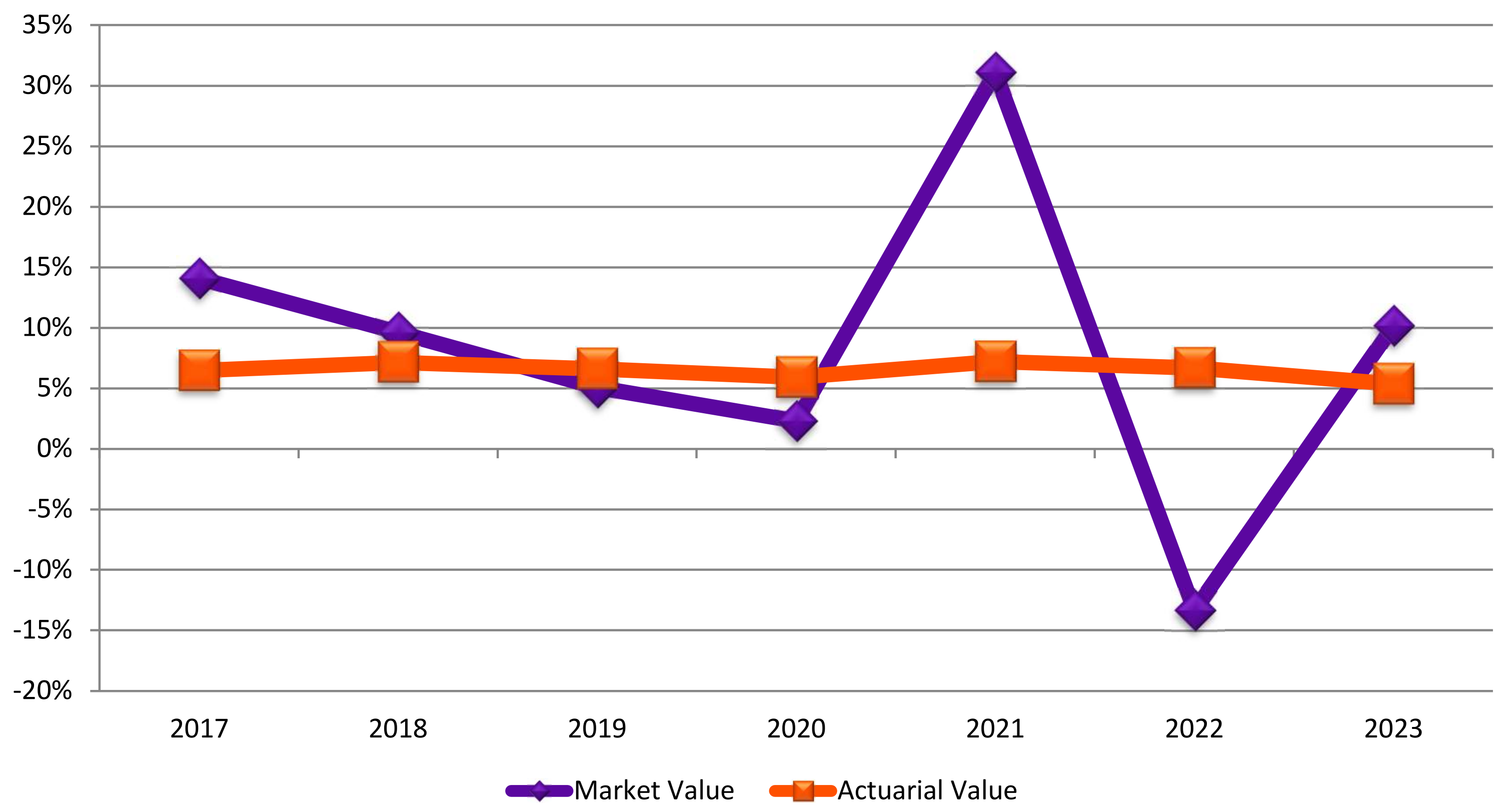
Year	(a) Gain / (loss)	(b) Total recognized as of 6/30/2022	(c) Recognized in current year: 20% of (a)	(d) Total recognized as of 6/30/2023: (b) + (c)	(e) Not recognized as of 6/30/2023: (a) - (d)
2018-2019	($4,474,973)	($3,579,977)	($894,996)	($4,474,973)	$0
2019-2020	(9,744,015)	(5,846,411)	(1,948,803)	(7,795,214)	(1,948,801)
2020-2021	45,779,498	18,311,800	9,155,900	27,467,700	18,311,798
2021-2022	(50,373,977)	(10,074,795)	(10,074,795)	(20,149,590)	(30,224,387)
2022-2023	6,555,637	0	1,311,127	1,311,127	5,244,510
Total			(2,451,567)		(8,616,880)

Asset Returns – Trends

Rate of Return on Market Value of Assets				
Period Ending	Average Annual Effective Rate of Return			
June 30	1 Year	3 Years	5 Years	10 Years
2014	15.0%	7.5%	12.3%	6.3%
2015	-1.7%	6.4%	8.2%	5.4%
2016	-1.3%	3.7%	3.8%	4.2%
2017	14.1%	3.4%	6.3%	3.9%
2018	9.6%	7.3%	6.9%	5.7%
2019	5.1%	9.5%	5.0%	8.6%
2020	2.3%	5.6%	5.8%	7.0%
2021	31.1%	12.1%	12.0%	7.8%
2022	-13.3%	5.1%	6.0%	6.1%
2023	10.2%	7.8%	6.1%	6.5%

Rate of Return on Actuarial Value of Assets				
Period Ending	Average Annual Effective Rate of Return			
June 30	1 Year	3 Years	5 Years	10 Years
2014	11.0%	6.5%	5.0%	4.8%
2015	7.8%	8.3%	6.3%	5.6%
2016	4.4%	7.7%	6.3%	5.6%
2017	6.5%	6.2%	7.2%	5.2%
2018	7.1%	6.0%	7.3%	5.1%
2019	6.6%	6.7%	6.5%	5.7%
2020	5.9%	6.6%	6.1%	6.2%
2021	7.2%	6.6%	6.7%	6.5%
2022	6.7%	6.6%	6.7%	6.9%
2023	5.4%	6.4%	6.4%	6.8%

Asset Returns – Trends



Funding Policy

- The funding policy in the baseline is the ADEC (30-year layered amortization)
  - Amortizes 2004 initial unfunded liability over a closed 30-year period
  - Future changes amortized separately over 30 years in each subsequent valuation
- For the 2023 valuation, a decision should be made about the funding policy approach going forward
- Current best practice is layered amortization, but with each base amortized over 15 to 20 years
- We are including two alternatives to consider for an updated policy
  - 20-year "fresh start", with subsequent changes amortized over 20 years
  - Fresh start but retain 18-year (Class A) and 17-year (Class B) amortization, with subsequent changes amortized over 20 years
- For the 2018 through 2022 valuations, a Direct Rate Smoothing contribution was developed in addition to the ADEC
  - Goal was a 5-year phase-in of the discount rate reduction, with a target of a fresh start 20-year amortization for the 2023 valuation

Burlington Employees' Retirement System
June 30, 2023 Actuarial Valuation - Preliminary Results

**** WORK PAPER ****

	June 30, 2022 Valuation	June 30, 2023 Valuation			
Discount Rate	7.10%	7.10%	7.10%	7.10%	7.10%
Experience Study Assumptions	Before	Before	**After**	After	After
Amortization	Layered 30 Yrs	Layered 30 Yrs	Layered Yrs	**20 Years**	**18 Years for Class A** **17 Years for Class B**
Actuarial Accrued Liability	325,818,016	344,058,897	347,249,878	347,249,878	347,249,878
Actuarial Value of Assets	227,048,886	232,271,118	232,271,118	232,271,118	232,271,118
Unfunded Accrued Liability (UAL)	98,769,130	111,787,779	114,978,760	114,978,760	114,978,760
Funded Ratio	**69.7%**	**67.5%**	**66.9%**	**66.9%**	**66.9%**
Actuarially Determined Employer Contribution (ADEC)[1]					
City Normal Cost	3,672,502	4,256,096	4,030,714	4,030,714	4,030,714
Amortization of UAL	9,384,551	10,660,329	10,938,508	10,212,586	10,907,846
Total ADEC	**13,057,053**	**14,916,425**	**14,969,222**	**14,243,300**	**14,938,560**
Class A	*7,045,557*	*7,850,366*	*7,950,345*	*7,651,246*	*7,925,093*
Class B	*6,011,496*	*7,066,059*	*7,018,877*	*6,592,054*	*7,013,467*

1. Fiscal Year Ending June 30, 2024 for June 30, 2022 Valuation; Fiscal Year Ending June 30, 2025 for June 30, 2023 Valuation; Amounts Have Been Adjusted with Inflation