



**Employee Pension Board of Trustees  
Pension Board Meeting Agenda  
October 19, 2021  
3:00 PM  
Online Meeting**

**Zoom Meeting Link**

***<https://us02web.zoom.us/j/85787665778>***

**Zoom Meeting ID**

***857 8766 5778***

**Zoom by Phone**

***1-312-626-6799***

**Call to Order**

**Public Comments**

**Approve Agenda**

**Approve Minutes**

**Approval of July 20, 2021 Employee Pension Board of Trustees Pension Board Meeting Minutes**

**New Business**

***Appoint New Chair and Vice Chair  
Sunpointe Investments - Presenting***

***Quarterly Sunpointe Report 9-30-21***

***Commerce Bank - Report Only***

***Quarterly Commerce Bank Report 9-30-21***

***Milliman Reports***

***Actuarial Valuation***

***Gasb 67 68***

***Joint Work Session Discussion  
Schwab Account Signers***

**Old Business**



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***Discussion of Meetings Held Online or In Person***

**Retirement Activity**

***Don Fischer Retired 9/30/21 - Public Works  
Alan Mueller Retired 9/30/21 - Public Works***

**Invoices**

**Meeting Schedule**

**2022 Meeting Schedule**

**Adjournment**



**Employee Pension Board of Trustees  
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3:00 PM  
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**Zoom Meeting Information**

**<https://us02web.zoom.us/j/86042353652>**

**Meeting ID: 860 4235 3652**

**Call to Order**

Jeff Hartman	Chief of Police	
David Caldwell	Vice Chair	
Joseph Martinich	Council Liaison	
Michael Karasick	Chair	
Ted Armstrong	Board Member	
Carol Lippman	Board Member	
Brad Holmes	Employee Representative	(Absent)
Lori Obermoeller	Director of Finance	
Anne Cronin		
Jack Dwyer		
Lee Boudouris		
Matt McCarty		
John Bascio		
Rhonda O'Brien	Board Member	

**Public Comments**

The Pension Board on 7/20/21 was David Caldwell's, Vice Chairman, last meeting. The Board welcomed new members Rhonda O'Brien and Joe Martinich, City Council Representative. At the next meeting, the Pension Board will vote for a new Chairman and Vice Chairman. Michael Karasick called the meeting to order and asked if anyone from the public was attending with comments for the Board. No one from the public had any comments.

**Approve Agenda**

**Approve Agenda**

<b>RESULT:</b>	<b>APPROVED [UNANIMOUS]</b>
<b>MOVER:</b>	Michael Karasick, Chair
<b>SECONDER:</b>	Carol Lippman, Board Member
<b>AYES:</b>	Hartman, Caldwell, Martinich, Karasick, Armstrong, Lippman
<b>ABSENT:</b>	Holmes

**Approve Minutes**

**Approval of April 20, 2021 Employee Pension Board of Trustees Pension Board Meeting Minutes**



**Employee Pension Board of Trustees  
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Online Meeting**

<b>RESULT:</b>	<b>ACCEPTED [UNANIMOUS]</b>
<b>MOVER:</b>	Ted Armstrong, Board Member
<b>SECONDER:</b>	David Caldwell, Vice Chair
<b>AYES:</b>	Hartman, Caldwell, Martinich, Karasick, Armstrong, Lippman
<b>ABSENT:</b>	Holmes

**Approve Minutes**

<b>RESULT:</b>	<b>APPROVED [UNANIMOUS]</b>
<b>MOVER:</b>	Ted Armstrong, Board Member
<b>SECONDER:</b>	David Caldwell, Vice Chair
<b>AYES:</b>	Hartman, Caldwell, Martinich, Karasick, Armstrong, Lippman
<b>ABSENT:</b>	Holmes

**New Business**

The following summary of the Pension Board’s quarterly meeting discussion topics was provided by Jack Dwyer with Sunpointe Investments.

The primary purpose of the meeting was to 1) Update you on portfolio implementation and performance for the quarter, 2) Approve the revised investment policy Statement (IPS), 3), Review the Commerce Bond portfolio and mandate, and 4) Discuss future implementation including active management in US small-cap and international equities. The following is a summary of our discussion.

(1) Portfolio Implementation Update:

- Trimmed the **Vanguard Total Stock Market** and **Vanguard Mid Cap** funds by approximately \$300,000 each on 4/22/21.
- Used the proceeds of these trades to invest \$300,000 each in **Cliffwater Corporate Lending** and **PIMCO Income Fund** on 4/26/21.

(2) Quarterly Performance Report:

- Sunpointe and the Pension Board reviewed the June 2021 performance report for the pension plan.
- The portfolio returned 5.3% during the second quarter and 27.7% over the past 12 months. The full performance is in the meeting’s agenda packet.
- For the quarter, the portfolio underperformed the 70% ACWI IMI/ 30% Barclays Aggregate Benchmark by 0.3%. The bond portfolio slightly outperformed the Barclays Aggregate, but the value, small-cap, and infrastructure allocations all trailed the ACWI IMI index for the quarter.
- Year-to-date, the portfolio has outperformed the 70/30 benchmark by 1%.
- Sunpointe and the Board discussed a comparison to LAGERS. The most recent report is from 3/31/21. For the first quarter, the CCERP portfolio returned 3.8% (vs. 5.2% for LAGERS). For the 12 months ending 3/31/21, the CCERP portfolio returned 39.9% (vs 28.5% for LAGERS). Comparisons between the two plans should be viewed in the context that LAGERS portfolio is about half private investments and using 35% leverage.

(3) Investment Policy Statement (IPS):

- The Board approved the updated IPS that included:
  - Redlined changes regarding applicable benchmarks and spending language.

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- Rewording the statement regarding the bond allocation to: “The total of below investment grade bonds, emerging market debt, and interval fund fixed income may not be more than 25% of the fixed income allocation.”
  - Moved “Infrastructure” next to the other components of the “Equity” major asset class in the chart on page 5 of the IPS. (Per Carol Lippman’s Suggestion)
  - Updated the effective date from June to July 2021.
  - Jack Dwyer sent Mike Karasick a clean revised IPS for signature on 7/21/21.
- (4) Commerce Bond Portfolio and Mandate
- The Board considered any possible changes to Commerce Bank’s mandate including increasing the allowable allocation to BBB bonds in the portfolio.
  - Matt McCarty of Commerce Bank noted that of the 22.1% of BBB rated bonds shown in the Commerce report, 5 bonds or 5.6% are split-rated (rated A3 or better by at least one rating agency). If the Board were to take the higher rating, then that would move the BBB exposure to 16.5%.
  - In the end, the Board decided to maintain the current 20% limit on BBB rated bonds, but to clarify that split-rated bonds where at least one rating agency rates the bond A3 / A- or above would not apply to that limit. Mr. McCarty agreed to add that measure to their report to assist in monitoring.
- (5) New Implementation:
- We (Sunpointe) discussed our analysis that active management has historically made sense in US small-cap and unconstrained (ACWI ex-US) international equities and presented two new managers.
  - The Board considered **Fuller & Thaler Behavioral Small Cap Equity** and discussed that the fund had displayed less volatility and lower drawdowns than the index and current ETFs. In the end, the Board decided not to approve the fund for use at this time, in part due to the higher fees involved with the active manager.
  - The Board approved the use of **Goldman Sachs GQG Partners International Opportunities** which will replace the portion of the passive non-US equity exposure currently with **iShares MSCI International Quality** and **Vanguard International Dividend Appreciation**.
  - We (Sunpointe) placed trades to implement the inclusion of **Goldman Sachs GQG Partners International Opportunities**, rebalanced the portfolio to its target risk profile on 7/21/21, and transferred \$500,000 to the Commerce account on 7/23/21.

### **Commerce Bank Quarterly Report - Presenting**

### **Sunpointe Quarterly Report - Presenting**

#### **Other Notes on the Quarterly Performance Report**

Sunpointe proposed to the Board the idea of having a manager, Fuller & Thaler Behavioral Small Cap Equity, for the small cap area. Mr. Dwyer explained that the 4.6% of small cap would be split equally between active and passive management. Ted Armstrong commented that the small cap area is a very small portion of the portfolio. This addition of management would increase the expense ratio and might not be profitable. Mr. Armstrong proposed making changes to the international area as opposed to small cap. He stated that the need to increase returns for small cap are not necessary at this time. Michael Karasick added that a small cap manager should be used to protect the investments. Mr. Dwyer explained that protection of the investments was the reasoning behind suggesting the additions to the Board. He continued that if the Board were to choose between making changes to international or small cap that international would be more of a priority and a higher chance of outperforming. The international change proposed by Sunpointe would replace the two quality managers from international and emerging markets (iShares MSCI International Quality and Vanguard

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International Dividend Appreciation) with Goldman Sachs GQG Partners International Opportunities. The Board decided to approve the change to Goldman Sachs due to its lower basis points.

**Review Investment Policy Assumptions and Asset Allocations**

**Other Notes on Investment Policy Statement (IPS)**

The Board discussed the limit on the fixed income allocation of no more than 15% of the bond allocation could be in below investment grade or emerging market bonds.

Mr. Dwyer suggested specifying that the category should also include fixed income interval funds (the Cliffwater investment) and that therefore, the limit should be increased from 15% to 25% of the fixed income allocation.

Joe Martinich expressed concern with the need to raise the limit on these types of bonds from 15% to 25%. David Caldwell added further a concern about how Sunpointe will monitor managers going over the 25%. Mr. Dwyer explained that the other 75% of the bond portfolio is reserved for bonds that are low volatility stable and likely to go up in value by only roughly 1-3% per year over the next 5 years. The 25% of the fixed income allocation dedicated to below investment grade, emerging market bonds, and interval fixed income should have a higher expected return, but a volatility of less than 10% which is significantly less than the volatility expected from equity investments. The Board decided to change the constraint to: "The total of below investment grade bonds, emerging market debt, and interval fund fixed income may not be more than 25% of the fixed income allocation."

**Approve Changes to IPS as so Noted**

<b>RESULT:</b>	<b>APPROVED [UNANIMOUS]</b>
<b>MOVER:</b>	Carol Lippman, Board Member
<b>SECONDER:</b>	David Caldwell, Vice Chair
<b>AYES:</b>	Hartman, Caldwell, Martinich, Karasick, Armstrong, Lippman
<b>ABSENT:</b>	Holmes

**Discussion of LAGERS Quarterly Report and Performance**

The Board quickly reviewed the LAGERS performance report and requested that this report be included in the agenda packets annually.

**Discussion of Future Meetings**

The Board discussed whether they should meet in person or online. They discussed the health concern and compared how other committees were conducting their meetings. Due to the unpredictability of the pandemic, the Board decided to hold the October meeting on Zoom. At the October meeting, they will discuss further returning to in person meetings.

**Hold Pension Board Meeting on October 19, 2021 Via Online**

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<b>RESULT:</b>	<b>APPROVED [4 TO 0]</b>
<b>MOVER:</b>	Carol Lippman, Board Member
<b>SECONDER:</b>	Ted Armstrong, Board Member
<b>AYES:</b>	Hartman, Karasick, Armstrong, Lippman
<b>ABSTAIN:</b>	Caldwell, Martinich
<b>ABSENT:</b>	Holmes

### Old Business

#### Retirement Activity

The Board was made aware of the recent retirements and an invoice paid to Commerce Trust.

**Dennis Woods - 6/30/2021**

**Patsy R. Rosenblatt - Deceased**

#### Invoices

**June Invoices Paid**

#### Adjournment

Jeff Hartman will be stepping down from the Board due to his recent promotion. The City Police Department will nominate a new representative to serve on the Board for the next meeting.

#### Adjourn

<b>RESULT:</b>	<b>APPROVED [UNANIMOUS]</b>
<b>MOVER:</b>	David Caldwell, Vice Chair
<b>SECONDER:</b>	Jeff Hartman, Chief of Police
<b>AYES:</b>	Hartman, Caldwell, Karasick, Armstrong, Lippman
<b>ABSENT:</b>	Martinich, Holmes

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## Creve Coeur Employee Retirement Plan

### Quarterly Performance Report

Period Ending: 09-30-2021



Communication: Quarterly Sunpointe Report 9-30-21 (Sunpointe Investments - Presenting)

September saw increased equity market volatility and a decline in equity prices. It is worth noting that this volatility in the equity market is entirely normal; the average intra-year drop in the S&P 500 since 1980 is 14.3% while the recent pullback was slightly more than 5%. Concerns over rising interest rates and Chinese property developer Evergrande sparked the volatility. Bond prices were little changed during the quarter as yields fell in the first half of the quarter but then rose back to a level near where they started the quarter.

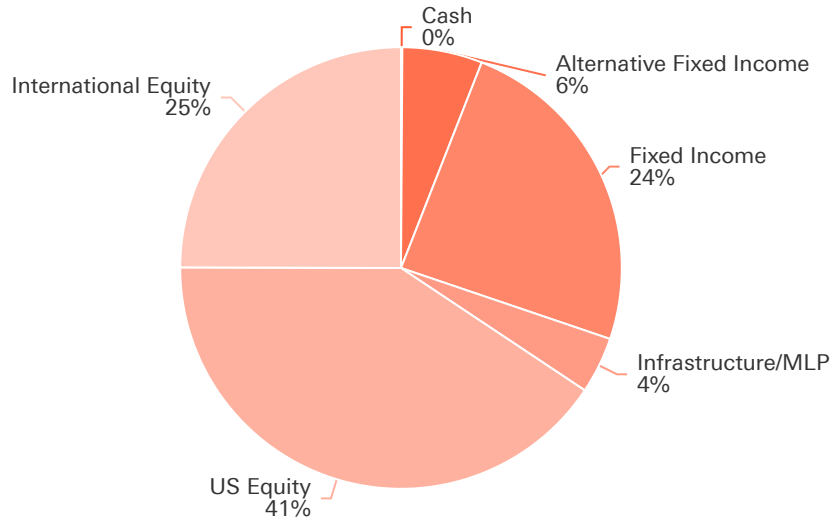
Unemployment fell to 5.2% in August, down from 5.9% last quarter. Inflation continued its recent jump with the headline PCE deflator up to 4.3%. Wage growth was up to 4.9%, above the 50-year average of 4%. While we expect inflation to fall over the next year from its current level to closer to 2.5%, we do expect it to remain above the Federal Reserve's target of 2%. Therefore, our base case is the that the Fed will begin tapering of bond buying in the next few months and make its first rate increase by the end of 2022. These Fed actions risk increasing yields which would hurt the prices of longer duration bonds and could introduce additional volatility into the equity markets.

### Market Returns

INDEX	3MO (%)	YTD (%)	1YR (%)	3YR (%)	5YR (%)	7YR (%)	10YF (%)
<i>FTSE USBIG Treasury Bill 3M</i>	0.0%	0.0%	0.1%	1.1%	1.1%	0.8%	0.6%
<i>Bloomberg US Aggregate (Total Return)</i>	0.1%	(1.6%)	(0.9%)	5.4%	2.9%	3.3%	3.0%
<i>Bloomberg US Corporate High Yield (Total Return)</i>	0.9%	4.5%	11.3%	6.9%	6.5%	5.9%	7.4%
<i>CRSP US Total Market (Total Return)</i>	(0.1%)	15.2%	32.1%	16.0%	16.9%	13.9%	16.6%
<i>MSCI All Country World IMI (Net Return)</i>	(1.1%)	11.4%	28.9%	12.4%	13.1%	10.0%	11.9%
<i>S&amp;P 500 (Total Return)</i>	0.6%	15.9%	30.0%	16.0%	16.9%	14.0%	16.6%
<i>CRSP US Mid Capital (Total Return)</i>	0.0%	15.3%	36.1%	14.7%	14.6%	12.4%	15.6%
<i>CRSP US Small Cap (Total Return)</i>	(2.6%)	13.3%	44.0%	12.0%	13.9%	11.9%	15.3%
<i>FTSE EPRA/NAREIT Global</i>	(2.2%)	9.8%	22.8%	2.4%	1.3%	2.4%	4.8%
<i>FTSE Developed Ex US (USD) (Total Return)</i>	(1.2%)	8.8%	27.3%	8.6%	9.7%	6.5%	8.6%
<i>FTSE Emerging (USD) (Total Return)</i>	(6.6%)	1.1%	18.9%	9.7%	9.5%	6.0%	6.5%
<i>Bloomberg Commodity Index</i>	6.6%	29.1%	42.3%	6.9%	4.5%	(1.5%)	(2.7%)
<i>S&amp;P Global Infrastructure (Total Return)</i>	1.5%	7.0%	23.0%	6.7%	5.9%	4.9%	7.8%

Communication: Quarterly Sunpointe Report 9-30-21 (Sunpointe Investments - Presenting)

Actual %



Market Value History



CC MASTER ASSET CLASS	PORTFOLIO %	ADJUSTED VALUE (USD)	QTD TWR
Cash	0.1%	\$32,506	0.0%
Alternative Fixed Income	5.9%	\$1,933,500	2.3%
Fixed Income	24.3%	\$8,003,602	0.0%
Infrastructure/MLP	4.1%	\$1,366,287	(0.9%)
US Equity	40.7%	\$13,432,068	(0.4%)
International Equity	25.0%	\$8,236,080	(3.3%)
<b>Total</b>	<b>100.0%</b>	<b>\$33,004,042</b>	<b>(0.9%)</b>

Cash Flows

	QTD	YTD
Starting Value	\$33,095,491	\$31,200,630
Gain/Loss	(\$481,027)	\$2,026,829
Net Income	\$162,345	\$496,598
Net Cash Flow	\$217,103	(\$720,923)
Change In Accrued Inco...	\$10,129	\$90,000
Ending Value	\$33,004,042	\$33,004,042

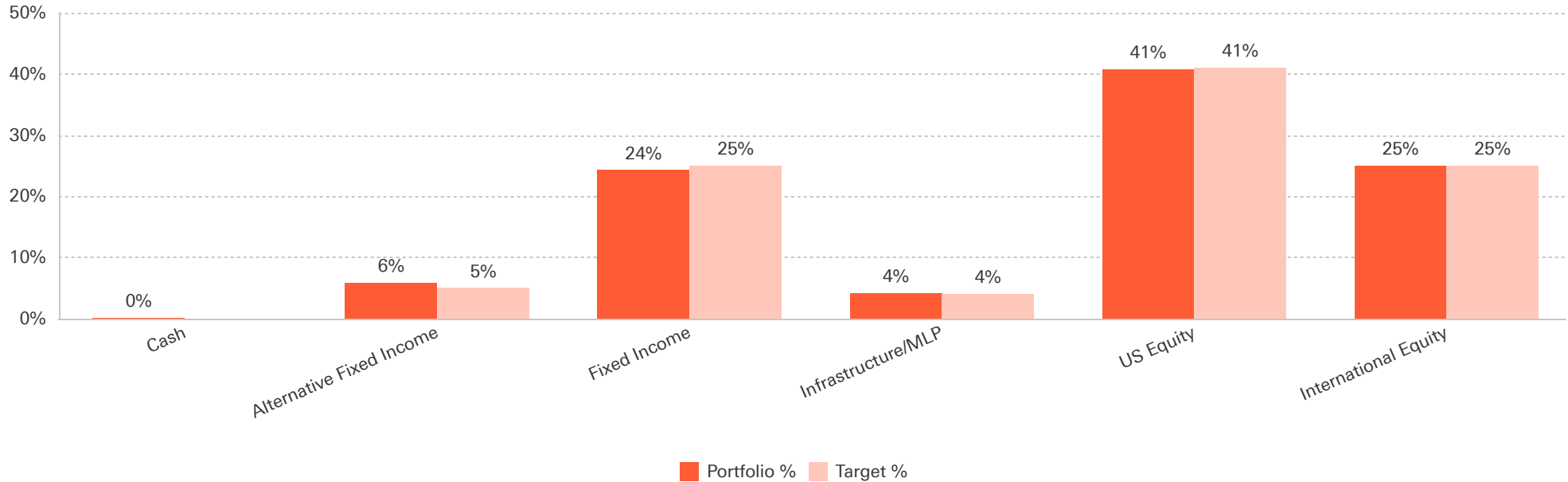
Communication: Quarterly Sunpointe Report 9-30-21 (Sunpointe Investments - Presenting)

	MARKET VALUE	PORTFOLIO	3MO	YTD	1YR	3YR	5YR	7YR	10YR	10 Y STD
<b>Total</b>	<b>33,004,042</b>	<b>100.0%</b>	<b>(0.9%)</b>	<b>8.2%</b>	<b>20.2%</b>	<b>10.2%</b>	<b>9.9%</b>	<b>8.3%</b>	<b>9.9%</b>	<b>9.5'</b>
<i>CCERP Blended Benchmark</i>			<i>(0.7%)</i>	<i>7.5%</i>	<i>20.2%</i>	<i>9.4%</i>	<i>9.2%</i>	<i>7.6%</i>	<i>9.3%</i>	<i>9.5</i>
<i>70% MSCI ACWI IMI / 30% Bloomberg Agg</i>			<i>(0.7%)</i>	<i>7.4%</i>	<i>19.4%</i>	<i>10.6%</i>	<i>10.2%</i>	<i>8.2%</i>	<i>9.4%</i>	<i>9.6</i>
<i>CCERP Actuarial Target (6.75%)</i>			<i>1.7%</i>	<i>5.0%</i>	<i>6.7%</i>	<i>6.7%</i>	<i>6.8%</i>	<i>6.9%</i>	<i>7.1%</i>	<i>0.1</i>
<b>Risk Mitigation Asset</b>	<b>9,969,608</b>	<b>30.2%</b>	<b>0.4%</b>	<b>1.0%</b>						
<b>Defensive</b>	<b>8,036,108</b>	<b>24.3%</b>	<b>0.0%</b>	<b>(0.4%)</b>						
<b>Cash</b>	<b>32,506</b>	<b>0.1%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.1%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	
<i>FTSE USBIG Treasury Bill 3M</i>			<i>0.0%</i>	<i>0.0%</i>	<i>0.1%</i>	<i>1.1%</i>	<i>1.1%</i>	<i>0.8%</i>	<i>0.6%</i>	
USD	32,506	0.1%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	
<b>US Fixed Income</b>	<b>8,003,602</b>	<b>24.3%</b>	<b>0.0%</b>	<b>(0.3%)</b>						
<i>Bloomberg US Aggregate (Total Return)</i>			<i>0.1%</i>	<i>(1.6%)</i>	<i>(0.9%)</i>	<i>5.4%</i>	<i>2.9%</i>	<i>3.3%</i>	<i>3.0%</i>	
<b>Commerce Core Bond Account</b>	<b>6,154,425</b>	<b>18.6%</b>	<b>(0.1%)</b>	<b>(0.8%)</b>	<b>0.1%</b>	<b>5.7%</b>	<b>3.3%</b>	<b>3.5%</b>	<b>5.7%</b>	
PIMCO Income Fund	1,310,473	4.0%	0.7%	2.5%						
Vanguard Intermediate-Term Corporate Bond ETF	538,703	1.6%								
<b>Flexible</b>	<b>1,933,500</b>	<b>5.9%</b>	<b>2.3%</b>	<b>7.9%</b>						
<b>Credit Strategies</b>	<b>1,933,500</b>	<b>5.9%</b>	<b>2.3%</b>	<b>7.9%</b>						
<i>Bloomberg US Credit Corporate 5-10 Year</i>			<i>(0.6%)</i>	<i>(2.6%)</i>						
Cliffwater Corp Lending FD I	1,933,500	5.9%	2.3%	7.9%						
<b>Risky Asset</b>	<b>23,034,434</b>	<b>69.8%</b>	<b>(1.5%)</b>	<b>11.3%</b>						
<b>Growth</b>	<b>21,668,148</b>	<b>65.7%</b>	<b>(1.5%)</b>	<b>11.3%</b>						
<b>US Large Core Equity</b>	<b>11,737,009</b>	<b>35.6%</b>	<b>(0.1%)</b>	<b>14.6%</b>						
<i>CRSP US Total Market (Total Return)</i>			<i>(0.1%)</i>	<i>15.2%</i>						
iShares MSCI USA Quality	1,389,752	4.2%	(0.5%)	14.6%						
Vanguard Dividend Appreciation	1,317,888	4.0%	(0.3%)	10.2%						
Vanguard Total Stock Market	9,029,370	27.4%	0.0%	15.1%						
<b>US Large Cap Value</b>	<b>597,522</b>	<b>1.8%</b>	<b>(0.9%)</b>	<b>15.7%</b>						
<i>CRSP US Large Capital Value (Total Return)</i>			<i>(0.9%)</i>	<i>15.7%</i>	<i>32.5%</i>	<i>9.9%</i>	<i>12.2%</i>	<i>10.4%</i>	-	
Vanguard Value ETF	597,522	1.8%	(0.9%)	15.7%	32.9%	9.9%	12.2%	10.4%	14.1%	
<b>US Small Cap Value Equity</b>	<b>415,428</b>	<b>1.3%</b>	<b>(2.2%)</b>	<b>20.4%</b>						
<i>CRSP US Small Cap Value (Total Return)</i>			<i>(2.2%)</i>	<i>20.4%</i>	<i>55.8%</i>	<i>8.8%</i>	<i>11.0%</i>	<i>10.2%</i>	-	
Vanguard Small Cap Value ETF IV	415,428	1.3%	(2.2%)	20.4%	54.0%	8.5%	10.8%	10.0%	14.1%	
<b>US Small Cap Equity</b>	<b>682,108</b>	<b>2.1%</b>	<b>(2.7%)</b>	<b>13.2%</b>						
<i>CRSP US Small Cap (Total Return)</i>			<i>(2.6%)</i>	<i>13.3%</i>	<i>44.0%</i>	<i>12.0%</i>	<i>13.9%</i>	<i>11.9%</i>	<i>15.3%</i>	
Vanguard Small Cap ETF	682,108	2.1%	(2.7%)	13.2%	44.0%	11.9%	14.0%	12.0%	15.3%	

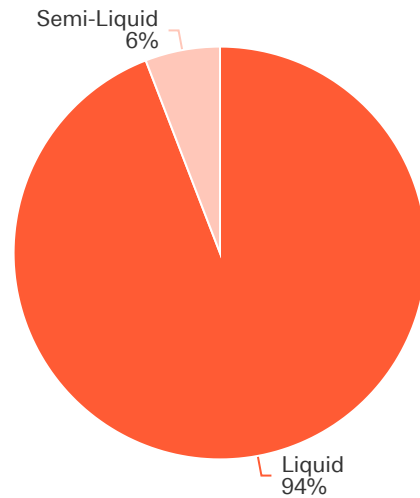
Communication: Quarterly Sunpointe Report 9-30-21 (Sunpointe Investments - Presenting)

RISK LEVEL	MARKET VALUE	PORTFOLIO	3MO	YTD	1YR	3YR	5YR	7YR	10YR
<b>International All Cap/Large Cap Equity</b>	<b>4,734,228</b>	<b>14.3%</b>	<b>(1.2%)</b>	<b>8.7%</b>					
<i>FTSE Developed Ex US (USD) (Total Return)</i>			<i>(1.2%)</i>	<i>8.8%</i>	<i>27.3%</i>	<i>8.6%</i>	<i>9.7%</i>	<i>6.5%</i>	<i>8.6%</i>
Vanguard FTSE Developed Markets ETF	3,440,187	10.4%	(1.6%)	8.7%	26.6%	8.2%	9.2%	6.4%	8.7%
<b>MSCI EAFE (USD) (Net Return)</b>			<b>(0.4%)</b>	<b>8.3%</b>	<b>25.7%</b>	<b>7.6%</b>	<b>8.8%</b>	<b>5.8%</b>	<b>8.1%</b>
Goldman Sachs GQG Partners Intl Oppty Inst	1,294,041	3.9%							
<b>International Large Cap Value Equity</b>	<b>536,432</b>	<b>1.6%</b>	<b>(1.8%)</b>	<b>9.5%</b>					
<i>MSCI EAFE Value (Net Return)</i>			<i>(1.0%)</i>	<i>9.6%</i>	<i>30.7%</i>	<i>3.0%</i>	<i>6.0%</i>	<i>2.7%</i>	<i>6.0%</i>
iShares MSCI EAFE Value ETF	536,432	1.6%	(1.8%)	9.5%	29.9%	2.8%	5.6%	2.5%	5.9%
<b>Emerging Market Equity</b>	<b>2,965,420</b>	<b>9.0%</b>	<b>(7.0%)</b>	<b>1.5%</b>					
<i>FTSE Emerging (USD) (Total Return)</i>			<i>(6.6%)</i>	<i>1.1%</i>	<i>18.9%</i>	<i>9.7%</i>	<i>9.5%</i>	<i>6.0%</i>	<i>6.5%</i>
Vanguard EM Equity Fund	2,965,420	9.0%	(7.0%)	1.5%	18.1%	9.6%	8.6%	5.3%	6.3%
<b>Hybrid/Income</b>	<b>1,366,287</b>	<b>4.1%</b>	<b>(0.9%)</b>	<b>7.0%</b>	<b>15.3%</b>	<b>4.1%</b>	<b>1.0%</b>	<b>3.4%</b>	<b>6.0%</b>
<b>Infrastructure/MLP</b>	<b>1,366,287</b>	<b>4.1%</b>	<b>(0.9%)</b>						
<i>S&amp;P Global Infrastructure (Total Return)</i>				<i>1.5%</i>					
Frontier MFG Select Infrastructure	1,366,287	4.1%	(0.9%)						

Actual % VS Target %



Liquidity



For IPS compliance, the Infrastructure/MLP allocation is considered part of US Equity.

Communication: Quarterly Sunpointe Report 9-30-21 (Sunpointe Investments - Presenting)

Expenses and Fees

ROLLED UP ACCOUNT	SUNPOINTE ASSET CLASS	TICKER SYMBOL	VALUE (USD)	EXP RATIO	ANNUAL COS
<b>Commerce Core Bond Account</b>	<b>US Fixed Income</b>	-	<b>\$6,154,425</b>	<b>0.30</b>	<b>\$18,467</b>
Cliffwater Corp Lending FD I	Credit Strategies	CCLFX	\$1,933,500	1.79	\$34,611
Frontier MFG Select Infrastructure	Infrastructure/MLP	FMSSX	\$1,366,287	0.95	\$12,988
Goldman Sachs GQG Partners Intl Oppty Inst	International All Cap/Large Cap Equity	GSIMX	\$1,294,041	0.79	\$10,222
iShares MSCI EAFE Value ETF	International Large Cap Value Equity	EFV	\$536,432	0.39	\$2,099
iShares MSCI USA Quality	US Large Core Equity	QUAL	\$1,389,752	0.15	\$2,088
PIMCO Income Fund	US Fixed Income	PIMIX	\$1,310,473	0.62	\$8,122
Vanguard Dividend Appreciation	US Large Core Equity	VIG	\$1,317,888	0.06	\$79
Vanguard EM Equity Fund	Emerging Market Equity	VWO	\$2,965,420	0.10	\$2,966
Vanguard FTSE Developed Markets ETF	International All Cap/Large Cap Equity	VEA	\$3,440,187	0.05	\$1,722
Vanguard Intermediate-Term Corporate Bond E...	US Fixed Income	VCIT	\$538,703	0.05	\$26
Vanguard Small Cap ETF	US Small Cap Equity	VB	\$682,108	0.05	\$34
Vanguard Small Cap Value ETF IV	US Small Cap Value Equity	VBR	\$415,428	0.07	\$29
Vanguard Total Stock Market	US Large Core Equity	VTI	\$9,029,370	0.03	\$2,707
Vanguard Value ETF	US Large Cap Value	VTV	\$597,522	0.04	\$23
<b>Total</b>			<b>\$32,971,536</b>		

Fees Paid

TRADE DATE	ACCOUNT NAME	TYPE	VALUE
09-15-2021	Commerce Core Bond Account	Account Fee	(\$1,580.66)
09-15-2021	Commerce Core Bond Account	Account Fee	(\$172.00)
08-13-2021	Commerce Core Bond Account	Account Fee	(\$1,626.97)
08-13-2021	Commerce Core Bond Account	Account Fee	(\$172.00)
07-26-2021	CC Schwab Account	Account Fee (Custodian)	(\$25.00)
07-15-2021	Commerce Core Bond Account	Account Fee	(\$174.00)
07-15-2021	Commerce Core Bond Account	Account Fee	(\$1,353.48)
07-08-2021	CC Schwab Account	Account Fee (Management)	(\$10,000.00)

Communication: Quarterly Sunpointe Report 9-30-21 (Sunpointe Investments - Presenting)

**Creve Coeur Employee Retirement Plan Blended Benchmark**

CRSP US Total Market (Total Return) 41%  
FTSE Developed Ex US (USD) (Total Return) 16%  
FTSE Emerging (USD) (Total Return) 9%  
Barclays US Aggregate (Total Return) 30%  
S&P Global Infrastructure (Total Return) 4%

*Monthly performance data prior to 7/1/2013 is gross returns (before fees) as reported by Commerce  
Data since 7/1/13 is net of fees. Monthly performance from 7/1/13-10/1/20 provided by Fiduciary Advisors*

*CCERP Actuarial Target benchmark - 7.5% prior to 7.31.2015; 7.0% from 8.01.2015 until 6/30/2018; 6.75% thereafter*

*Creve Coeur Employee Retirement Plan Blended Benchmark: MSCI US Mid Cap 450 6%, MSCI US Prime Market Value 5%, MSCI All Country World Ex US (Net Return), 14%, Barclays US Aggregate (Total Return) 30%, S&P 500 (Total Return) 25%, MSCI US Small Cap 1750 8%, MSCI ACWI ex USA Small Cap 4%, MSCI US Small Cap Value 1%, MSCI US REITS (Total Return) 4%, S&P Goldman Sachs Commodity Index (Total Return) 3% until 5/31/2018; S&P Goldman Sachs Commodity Index (Total Return) 3%, MSCI ACWI ex USA Small Cap 6%, MSCI All Country World Ex US (Net Return) 17%, MSCI US Small Cap Value 1%, MSCI US Small Cap 1750 8%, MSCI US Mid Cap 450 5%, MSCI US Prime Market Value 4%, MSCI US REITS (Total Return) 4%, Barclays US Aggregate (Total Return) 30%, S&P 500 (Total Return) 22% thereafter until 7/31/2019; MSCI US REITS (Total Return) 4%, MSCI Emerging Markets (Net Return) 5%, S&P 500 (Total Return) 22%, MSCI US Small Cap 1750 8%, Barclays US Aggregate (Total Return) 30%, MSCI US Mid Cap 450 5%, MSCI EAFE Value (Net Return) 3%, MSCI US Prime Market Value 4%, MSCI US Small Cap Value 1%, MSCI EAFE Small Cap (Net Return) 5%, MSCI EAFE (USD) (Net Return) 13% thereafter until current allocation above.*

*Investment advisory services are offered through Sunpointe Investments, LLC, a Securities and Exchange Commission Registered Investment Advisor. Values are provided by the Custodian as of the date of the report. We believe the sources to be reliable, however, the accuracy and completeness of the information is not guaranteed. In the event of a discrepancy, the Custodian's valuation shall prevail.*

*Data reflected within this report may reflect data held at various Custodians and may not be covered under SIPC. Certain other reported entities may be SIPC members that provide coverage for assets held there. You should contact your financial representative, or the other entity, or refer to the other entity's statement, regarding SIPC coverage. Assets reflected on this report are not held at the Firm on your behalf, but at the Custodian.*

**City of Creve Coeur Employee Pension Plan  
10/5/2021  
Implementation Plan**

	Ticker	Expense Ratio	Current Value	Current %	Current Policy	Transactions	Resulting Balance	Result %	Rec'd Policy
<b>RISK MITIGATION ASSETS</b>				<b>29.7%</b>	<b>30.0%</b>				<b>30.0%</b>
<b>Defensive</b>				<b>23.8%</b>	<b>25.0%</b>				<b>25.0%</b>
Cash	-		22,506	0.1%		-	22,506	0.1%	
<b>Cash</b>			\$ <b>22,506</b>	<b>0.1%</b>	<b>0.0%</b>	\$ -	\$ <b>22,506</b>	<b>0.1%</b>	<b>0.0%</b>
Vanguard Intermediate-Term Corporate Bond ETF	VCIT	0.05%	538,475	1.6%			538,475	1.6%	
PIMCO Income Fund	PIMIX	0.13%	1,311,561	4.0%			1,311,561	3.9%	
Commerce Core Bond Account	-	0.30%	5,981,800	18.1%		500,000	6,481,800	19.4%	
<b>US Fixed Income</b>			\$ <b>7,831,836</b>	<b>23.8%</b>	<b>25.0%</b>	\$ <b>500,000</b>	\$ <b>8,331,836</b>	<b>24.9%</b>	<b>25.0%</b>
<b>Total Defensive</b>			\$ <b>7,854,342</b>	<b>23.8%</b>	<b>25.0%</b>	\$ <b>500,000</b>	\$ <b>8,354,342</b>	<b>25.0%</b>	<b>25.0%</b>
<b>Flexible</b>				<b>5.9%</b>	<b>5.0%</b>				<b>5.0%</b>
Cliffwater Corp Lending FD I	CCLFX	1.79%	1,935,317	5.9%			1,935,317	5.8%	
<b>Credit Strategies</b>			\$ <b>1,935,317</b>	<b>5.9%</b>	<b>5.0%</b>	\$ -	\$ <b>1,935,317</b>	<b>5.8%</b>	<b>5.0%</b>
<b>Total Flexible</b>			\$ <b>1,935,317</b>	<b>5.9%</b>	<b>5.0%</b>	\$ -	\$ <b>1,935,317</b>	<b>5.8%</b>	<b>5.0%</b>
<b>TOTAL RISK MITIGATION</b>			\$ <b>9,789,659</b>	<b>29.7%</b>	<b>30.0%</b>	\$ <b>500,000</b>	\$ <b>10,289,659</b>	<b>30.7%</b>	<b>30.0%</b>
<b>RISKY ASSETS</b>				<b>70.3%</b>	<b>70.0%</b>				<b>70.0%</b>
<b>Growth</b>				<b>66.1%</b>	<b>66.0%</b>				<b>66.0%</b>
iShares MSCI USA Quality	QUAL	0.15%	1,397,137	4.2%			1,397,137	4.2%	
Vanguard Dividend Appreciation	VIG	0.06%	1,332,217	4.0%			1,332,217	4.0%	
Vanguard Total Stock Market (Large Portion)	VTI	0.03%	6,461,086	19.6%		-	6,461,086	19.3%	
<b>US Large Core Equity</b>			\$ <b>9,190,439</b>	<b>27.9%</b>	<b>41.0%</b>	\$ -	\$ <b>9,190,439</b>	<b>27.5%</b>	<b>41.0%</b>
Vanguard Value ETF	VTV	0.04%	607,101	1.8%			607,101	1.8%	
<b>US Large Cap Value</b>			\$ <b>607,101</b>	<b>1.8%</b>	<b>0.0%</b>	\$ -	\$ <b>607,101</b>	<b>1.8%</b>	<b>0.0%</b>
Vanguard Total Stock Market (Mid Portion)	VTI	0.03%	1,638,022	5.0%		-	1,638,022	4.9%	
<b>US Mid Cap Equity</b>			\$ <b>1,638,022</b>	<b>5.0%</b>	<b>0.0%</b>	\$ -	\$ <b>1,638,022</b>	<b>4.9%</b>	<b>0.0%</b>
Vanguard Small Cap ETF	VB	0.05%	689,158	2.1%			689,158	2.1%	
Vanguard Total Stock Market (Small Portion)	VTI	0.03%	1,001,013	3.0%		-	1,001,013	3.0%	
<b>US Small Cap Equity</b>			\$ <b>1,690,172</b>	<b>5.1%</b>	<b>0.0%</b>	\$ -	\$ <b>1,690,172</b>	<b>5.0%</b>	<b>0.0%</b>
Vanguard Small Cap Value ETF IV	VBR	0.07%	423,993	1.3%			423,993	1.3%	
<b>US Small Cap Value Equity</b>			\$ <b>423,993</b>	<b>1.3%</b>	<b>0.0%</b>	\$ -	\$ <b>423,993</b>	<b>1.3%</b>	<b>0.0%</b>

Communication: Quarterly Sunpointe Report 9-30-21 (Sunpointe Investments - Presenting)

	Ticker	Expense Ratio	Current Value	Current %	Current Policy	Transactions	Resulting Balance	Result %	Rec'd Policy
Vanguard FTSE Developed Markets ETF	VEA	0.05%	3,438,143	10.4%			3,438,143	10.3%	
Goldman Sachs GQG Partners Intl Oppty Inst	GSIMX	0.79%	1,310,538	4.0%			1,310,538	3.9%	
<b>International All Cap/Large Cap Equity</b>			<b>\$ 4,748,681</b>	<b>14.4%</b>	<b>16.0%</b>	<b>\$ -</b>	<b>\$ 4,748,681</b>	<b>14.2%</b>	<b>16.0%</b>
iShares MSCI EAFE Value ETF	EFV	0.39%	539,649	1.6%			539,649	1.6%	
<b>International Large Cap Value Equity</b>			<b>\$ 539,649</b>	<b>1.6%</b>	<b>0.0%</b>	<b>\$ -</b>	<b>\$ 539,649</b>	<b>1.6%</b>	<b>0.0%</b>
Vanguard EM Equity Fund	VWO	0.10%	2,954,153	9.0%			2,954,153	8.8%	
<b>Emerging Market Equity</b>			<b>\$ 2,954,153</b>	<b>9.0%</b>	<b>9.0%</b>	<b>\$ -</b>	<b>\$ 2,954,153</b>	<b>8.8%</b>	<b>9.0%</b>
<b>Total Growth</b>			<b>\$ 21,792,211</b>	<b>66.1%</b>	<b>66.0%</b>	<b>\$ -</b>	<b>\$ 21,792,211</b>	<b>65.1%</b>	<b>66.0%</b>
<b>Regional Exposure</b>									
			<i>United States</i>	<i>62.2%</i>	<i>62.1%</i>			<i>62.2%</i>	<i>62.1%</i>
			<i>International Developed</i>	<i>24.3%</i>	<i>24.2%</i>			<i>24.3%</i>	<i>24.2%</i>
			<i>Emerging Markets</i>	<i>13.6%</i>	<i>13.6%</i>			<i>13.6%</i>	<i>13.6%</i>
<b>Hybrid/Income</b>				<b>4.2%</b>	<b>4.0%</b>				<b>4.0%</b>
Frontier MFG Select Infrastructure	FMSSX	0.95%	1,388,953	4.2%			1,388,953	4.1%	
<b>Infrastructure/MLP</b>			<b>\$ 1,388,953</b>	<b>4.2%</b>	<b>4.0%</b>	<b>\$ -</b>	<b>\$ 1,388,953</b>	<b>4.1%</b>	<b>4.0%</b>
<b>Total Hybrid/Income</b>			<b>\$ 1,388,953</b>	<b>4.2%</b>	<b>4.0%</b>	<b>\$ -</b>	<b>\$ 1,388,953</b>	<b>4.1%</b>	<b>4.0%</b>
<b>TOTAL RISKY ASSETS</b>			<b>\$ 23,181,164</b>	<b>70.3%</b>	<b>70.0%</b>	<b>\$ -</b>	<b>\$ 23,181,164</b>	<b>69.3%</b>	<b>70.0%</b>
			<b>\$ 32,970,823</b>	<b>100%</b>	<b>100%</b>	<b>\$ 500,000</b>	<b>\$ 33,470,823</b>	<b>100%</b>	<b>100%</b>

# Sunpointe Investments

## City of Creve Coeur Employee Pension Plan

October 19, 2021

**Jack Dwyer CFA, CAIA**  
President

**Michael Pompian, CFA, CAIA, CFP**  
Founder and CIO

**Lee Boudouris, CAIA, CIPM**  
Senior Associate



Communication: Quarterly Sunpointe Report 9-30-21 (Sunpointe Investments - Presenting)

- Executive Summary
- Objectives and Monitoring
- Asset Allocation
- Manager Information
- Market Environment

Today we plan to:

- Update the progress of implementing portfolio changes
  - The updated Investment Policy Statement (IPS) was approved at the last meeting.
  - Creve Coeur deposited \$705,518 for a pension payment on 7/21/21.
  - Rebalanced the portfolio and added investments in **Goldman Sachs GQG Partners International Opportunities** and **Vanguard Intermediate-Term Corporate Bond ETF** on 7/21/21.
  - Partially rebalanced the portfolio on 9/8/21. Trimmed US and international developed equities and added to fixed income and emerging market equities.
  
- Review Portfolio Performance
  - The portfolio returned -0.9% during the third quarter and 20.2% over the past 12 months.
  - For the quarter, the portfolio underperformed the 70% MSCI ACWI IMI / 30% Bloomberg Aggregate Benchmark by 0.2%. For the quarter:
    - The risk mitigation (bond) bucket outperformed the Bloomberg Aggregate by 0.3%
    - The emerging market, small-cap, and value allocations all trailed the MSCI ACWI IMI resulting in risky assets trailing MSCI ACWI IMI by 0.4%
  - Year-to-date, the portfolio has outperformed the 70/30 benchmark by 0.8%.

- Review Fund Performance
  - **Cliffwater** and **PIMCO Income** outperformed the Bloomberg US Aggregate by 2.2% and 0.6%, respectively, due to their higher yield and shorter duration.
  - **Vanguard Dividend Appreciation** and **iShares MSCI US Quality** both trailed the S&P 500 as quality stocks were out of favor during the quarter.
  - **Frontier MFG Select Infrastructure** trailed the S&P Global Infrastructure benchmark by 2.4% during the quarter but outperformed the broad ACWI IMI benchmark. The fund's underweight to energy stocks and overweight to utilities compared to the S&P Global Infrastructure benchmark detracted from relative performance.
  
- Expected Implementation:
  - A deposit from the city of about \$500,000 is expected on or about 10/26/21
  - The additional funds will be deposited into the Commerce Bond account

- Board Activity over the past year:
  - Sunpointe surveyed Board members in the fall of 2020 and presented the results on 10/21/20.
  - The Board selected a target allocation and the IPS was revised in November of 2020, with a subsequent revision adopted at the 7/20/21 board meeting.
  - In December 2020, the board approved the use of the **Cliffwater Corporate Lending** and **PIMCO Income** Funds.
  - At the January 2021 meeting, the Board:
    - Approved the use of the **Frontier MFG Select Infrastructure Fund**.
    - Decided to lower the assumed actuarial return from 6.75% to 6.0%. This change, along with a new mortality table, went into effect on 7/1/21.
  - In July 2021, the board:
    - approved the use of **Goldman Sachs GQG Partners International Opportunities**
    - reviewed and confirmed the mandate for the **Commerce Bond Portfolio**
- In September, Jack met with each of the Board members added in 2021.
- As a reminder, Sunpointe has been delegated authority to manage the portfolio within the IPS guidelines, but the board has reserved the right to approve new active managers.

## Retirement Plan for Employees of the City of Creve Coeur

“In establishing this Investment Policy, the Board has considered the fact that the Plan, together with social security, is the major retirement vehicle for most plan participants and has acted to discharge its fiduciary responsibility solely in the interests of such participants and their beneficiaries. The basic goal underlying the establishment of this policy is to provide that the assets of the Plan shall be invested in a prudent manner, and that together with expected contributions to the Plan they will be sufficient to meet the obligations of the Plan.”<sup>1</sup>

### Time Horizon:

The investment guidelines are based upon a 20-year investment horizon with the ability to pay current and future obligations. The time horizon should be reviewed at least annually to coincide with the actuarial forecast of gross and net distributions.

### Spending:

The net distribution rate from the portfolio is expected to be less than 5% per year between 2021 and 2024, then 5-6% between 2025-2028. In 2029, net distributions are expected to jump to approximately 8% of the portfolio and grow steadily due to the closed nature of the plan.

### Risk Tolerance:

The Board recognizes that some risk must be assumed in order to achieve the investment objectives of the Portfolio. In establishing the risk tolerances of the IPS, the ability to withstand short and intermediate term variability were considered. The Portfolio's long time horizon, current financial condition and other factors suggest collectively some interim fluctuations in market value and rates of return may be tolerated in order to achieve the longer term objectives.

### Performance Expectations:

The desired investment objective is a rate of return on assets that, before fees, matches the policy index as defined later in this IPS.

<sup>1</sup> Source: INVESTMENT POLICY STATEMENT for the Retirement Plan for Employees of the City of Creve Coeur, revised July 2021

- We continually review the portfolio to ensure that the allocation remains within the IPS guidelines.
- Below, we summarize those constraints and how the portfolio compares to them.

Constraint	Current Status
US small and mid cap equities may not be more than 50% of the total US equity allocation	28%
The overweight to growth or value stocks may not be more than 20% relative to the core asset class benchmark <sup>1</sup>	Value +12%
Emerging market equities may not be more than 20% of the total equity allocation	14%
The total of below investment grade bonds, emerging market debt, and interval fund fixed income may not be more than 25% of the fixed income allocation. <sup>2</sup>	25%

<sup>1</sup> Derived from underlying portfolio holdings using Morningstar Direct and based on total equity portfolio. Calculated as value weight in portfolio (30.25%) divided by the value weight in the ACWI IMI benchmark weight (27.0%)

<sup>2</sup> Based on 100% of **Cliffwater** value as interval fixed income and **PIMCO Income** value classified as 13% below investment grade bonds and 29% emerging market debt.

	CCERP Current Strategic Allocation	Actual 9/30/2021 Allocation	Best Ideas Portfolio
	A	B	C
<b>Risk Mitigation</b>			
<b>Defensive</b>			
Cash/Low Duration		0.1%	
US Core Fixed Income	30.0%	20.2%	17.0%
<b>Total Defensive</b>	30.0%	20.3%	17.0%
<b>Flexible</b>			
Diversifying Strategies		4.0%	5.0%
Credit Strategies		5.9%	10.0%
<b>Total Flexible</b>	0.0%	9.9%	15.0%
<b>Total Risk Mitigation</b>	30.0%	30.2%	32.0%
<b>Risky Asset</b>			
<b>Growth</b>			
US All Cap/Large Cap Equity	45.0%	28.2%	28.0%
US Mid Cap Equity		6.9%	6.0%
US Small Cap Equity		5.7%	5.0%
Intl All Cap/Large Cap Equity	16.0%	15.9%	15.0%
Emerging Market Equity	9.0%	9.0%	9.0%
<b>Total Growth</b>	70.0%	65.7%	63.0%
<b>Hybrid/Income</b>			
Infrastructure		4.1%	5.0%
<b>Total Hybrid/Income</b>	0.0%	4.1%	5.0%
<b>Total Risky Asset</b>	70.0%	69.8%	68.0%
<b>Total</b>	100%	100%	100%
<i>Assumes 2.2% inflation</i>			
<b>Return</b>			
10 Yr. Horizon Expected Return	4.9%	5.3%	5.4%
<b>Risk (Using 10-yr Horizon Returns)</b>			
Standard Deviation (1 Yr.)	10.8%	11.4%	11.2%
95% Confidence Return Range (1 Yr.)	-16.8% - 26.5%	-17.5% - 28%	-17.1% - 27.9%
95% Confidence Return Range (10 Yr.)	-2% - 11.7%	-1.9% - 12.5%	-1.7% - 12.5%
Probability of Loss Year	30.8%	30.3%	29.7%
Probability of 10% or Worse Loss	7.7%	8.2%	7.7%
Lowest Likely Return (1 Yr.)	-19.7%	-20.6%	-20.1%
Lowest Likely Return (10 Yr.)	-2.7%	-2.7%	-2.5%
Sharpe Ratio	0.37	0.38	0.40

- The portfolio allocation is now close to our best ideas allocation.
- The allocation to credit strategies is limited by the IPS constraint regarding interval fixed income.
- Rebalancing the portfolio is expected to reduce expected volatility (standard deviation) without reducing expected return.
- Including credit strategies and infrastructure in the portfolio results in a higher Sharpe Ratio. The Sharpe Ratio is a measure of return per unit of risk and a higher number is better.

- **GS GQG International Opportunities** was added to the portfolio on July 21<sup>st</sup> after the Committee approved the fund at the last meeting.
- Performance is not shown on the performance report as the fund was not held for the entire quarter. However, the fund had a strong third quarter, outperforming its benchmark by 190 basis points and protecting capital during a down market environment.

	3 Month	YTD	1 Yr.	3 Yr.	5 Yr.
GS GQG Int'l Opportunities	-1.1%	10.0%	15.4%	13.9%	
MSCI ACWI ex-USA	-3.0%	5.9%	23.9%	8.0%	
Vanguard FTSE Developed	-1.5%	8.3%	26.6%	8.2%	9.2%
iShares MSCI EAFE Value	-1.6%	9.0%	29.8%	2.7%	5.7%

Returns are presented net of fees.

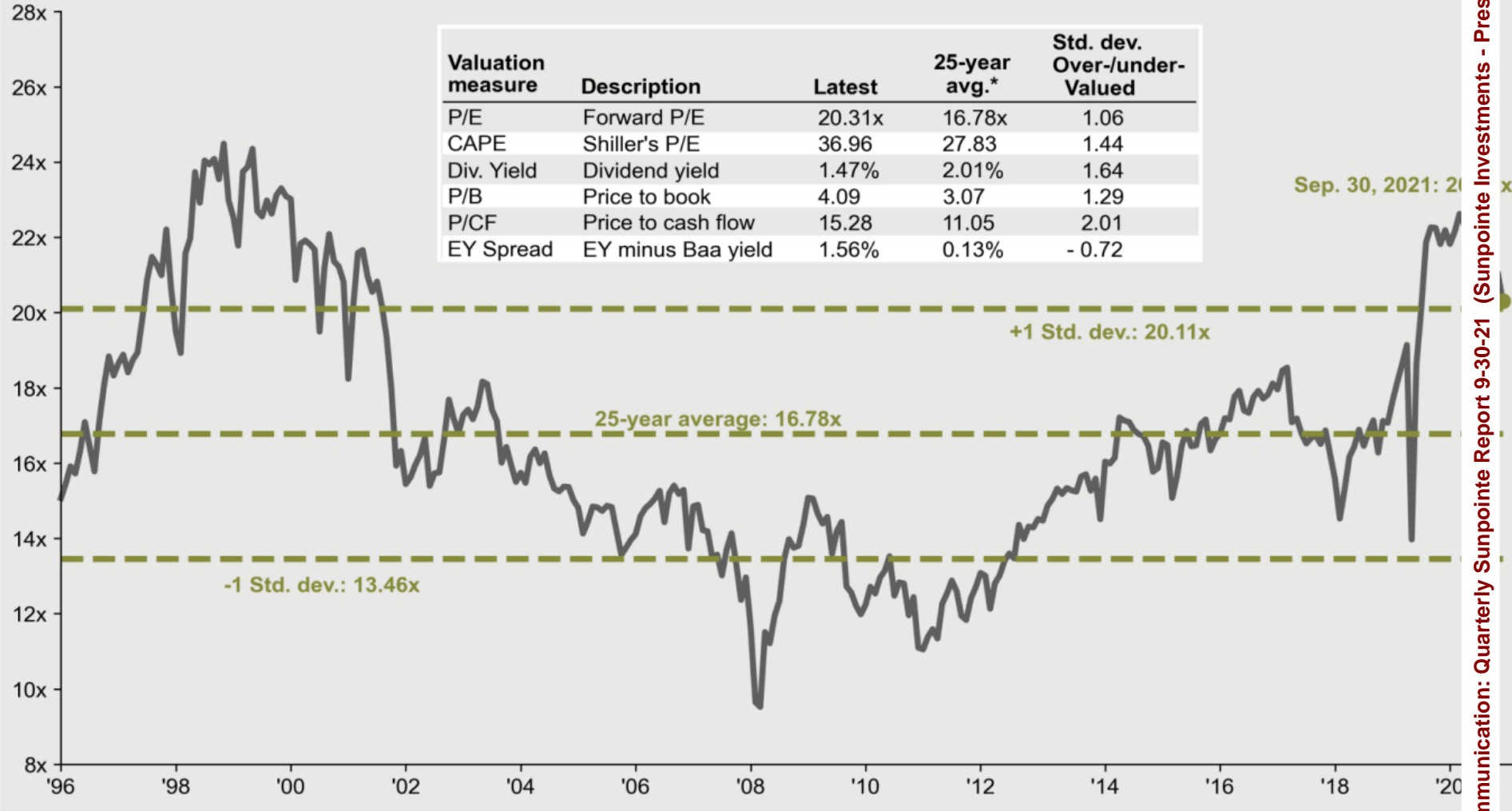
- We added **Vanguard Intermediate-Term Corporate Bond Index ETF** on July 21<sup>st</sup>.
- The fund is a passively managed ETF that tracks the Bloomberg U.S. 5-10 Year Corporate Bond Index. The fund’s expense ratio is just five basis points.
- We will use the small allocation to this fund (1.6% of the portfolio) as a source of liquidity and a means with which to rebalance the portfolio.

	3 Month	YTD	1 Yr.	3 Yr.	5 Yr.
Vanguard Interm.-Term Corp.	0.0%	-1.0%	1.3%	7.5%	4.4%
Bloomberg US Corp 5-10 Year	0.0%	-1.1%	1.3%	7.6%	4.5%

Returns are presented net of fees.

# S&P 500 Valuations Versus L-T Average

**S&P 500 Index: Forward P/E ratio**



Source: FactSet, FRB, Robert Shiller, Standard & Poor's, Thomson Reuters, J.P. Morgan Asset Management.

Valuations are above average, except relative to fixed income—equity risk premium remains attractive. However, the forward P/E ratio of the S&P 500 declined from 21.5x on 6/30 to 20.3x on 9/30, mostly due to strong earnings.

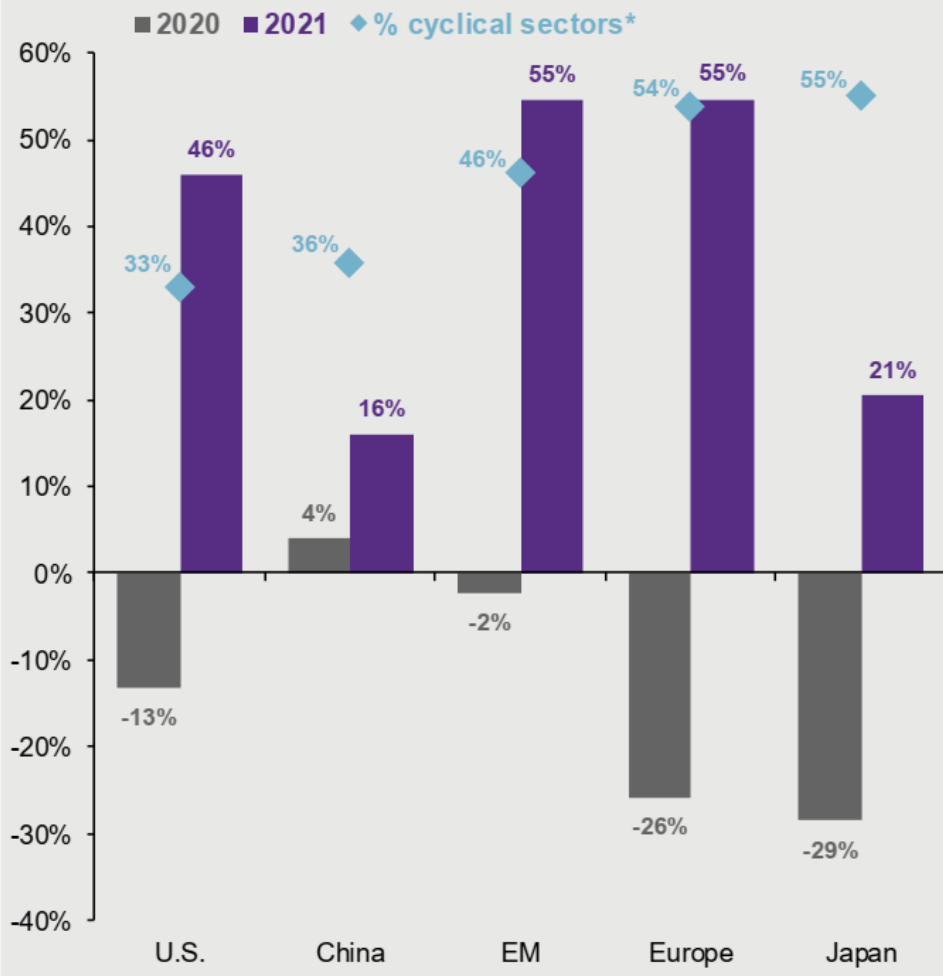


Source: FactSet, FTSE Russell, NBER, J.P. Morgan Asset Management. Data are as of September 31, 2021. Growth is represented by the Russell 1000 Growth Index and Value is represented by the Russell 1000 Value.

Based on forward P/E ratios, value appears somewhat cheaper than growth; the recent rise in interest rates has not changed this yet. It is worth noting that due to the earnings of growth companies, the valuation difference is much less extreme than during the internet bubble of the late 1990s.

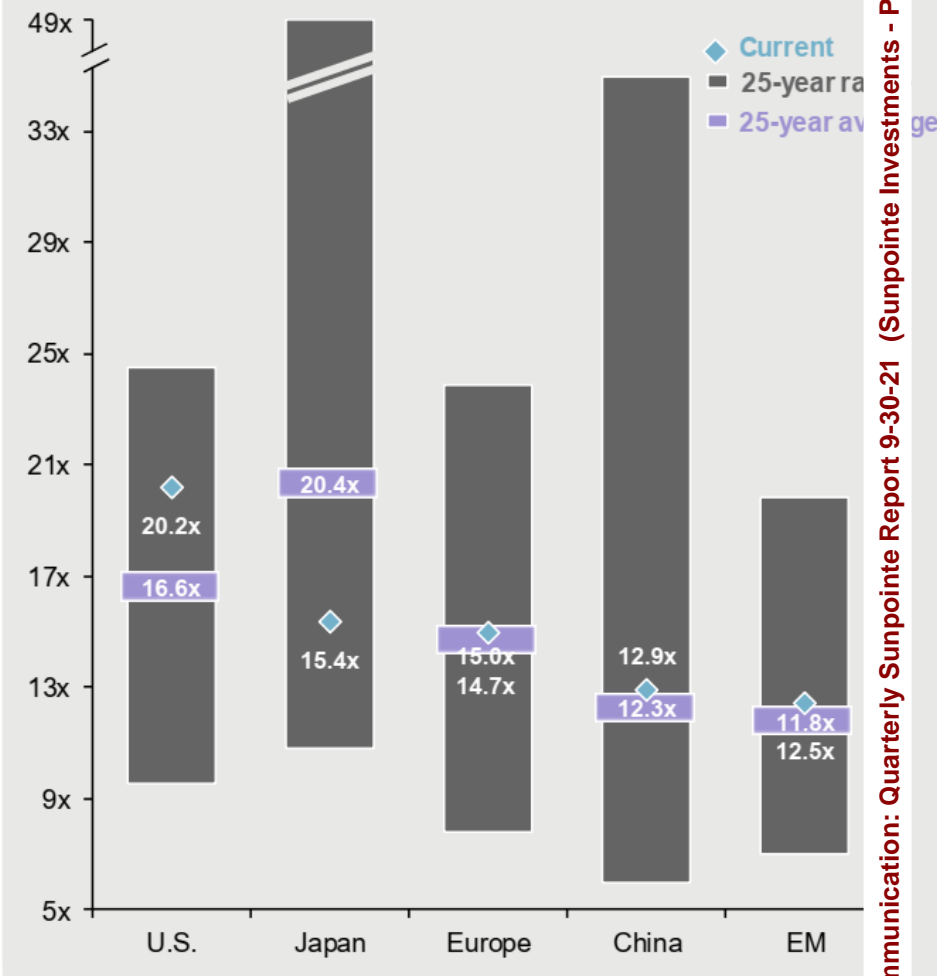
## Global earnings growth

Calendar year consensus estimates



## Global valuations

Current and 25-year next 12 months price-to-earnings ratio



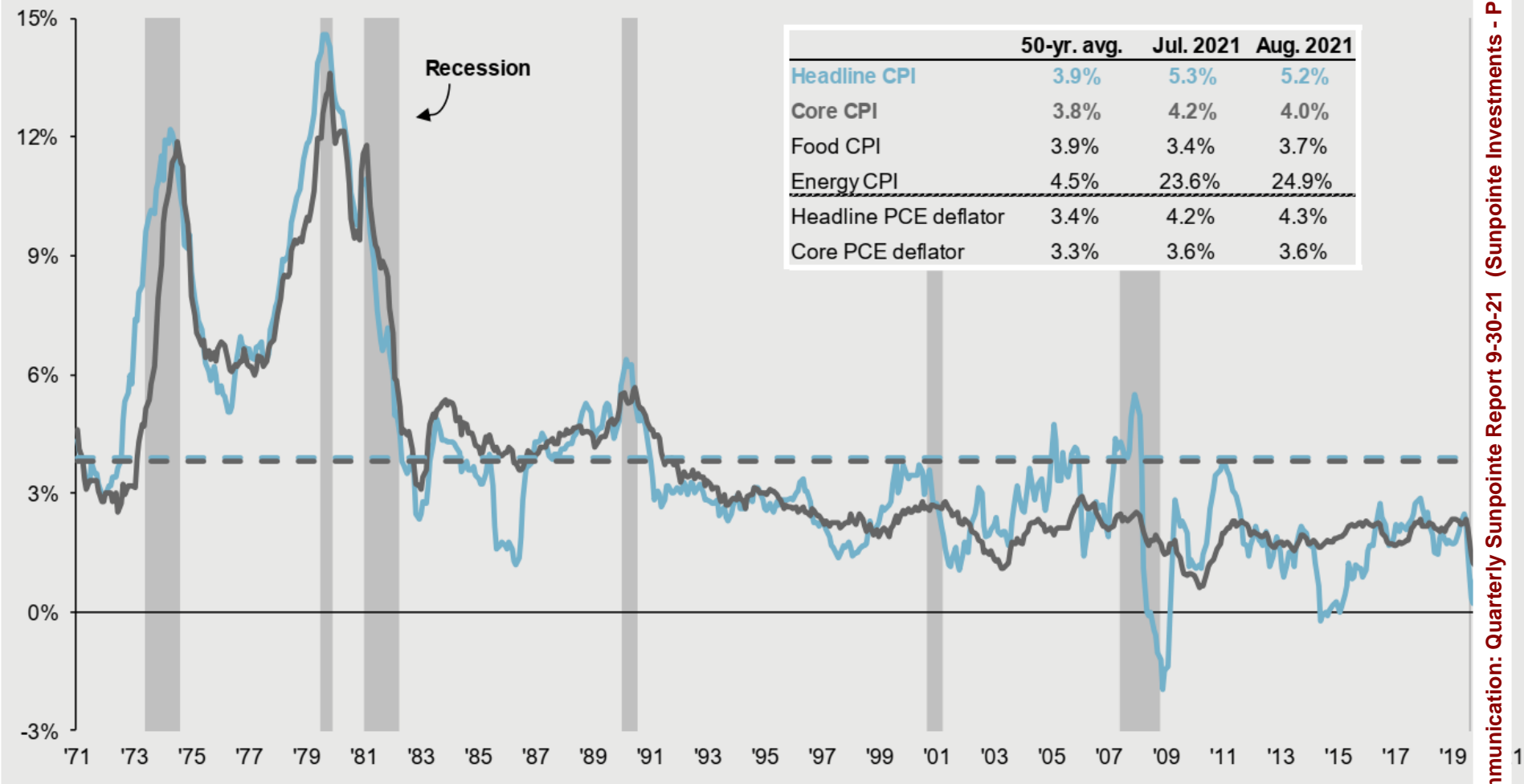
Source: FactSet, MSCI, Standard & Poor's, Thomson Reuters, J.P. Morgan Asset Management.

Communication: Quarterly Sunpointe Report 9-30-21 (Sunpointe Investments - Presenting)

Global equity valuations outside of Japan have fallen to levels close to their long-term averages. Japanese and European equities have significant exposure to cyclical sectors, such as industrials, that may perform well in a market recovery.

## CPI and core CPI

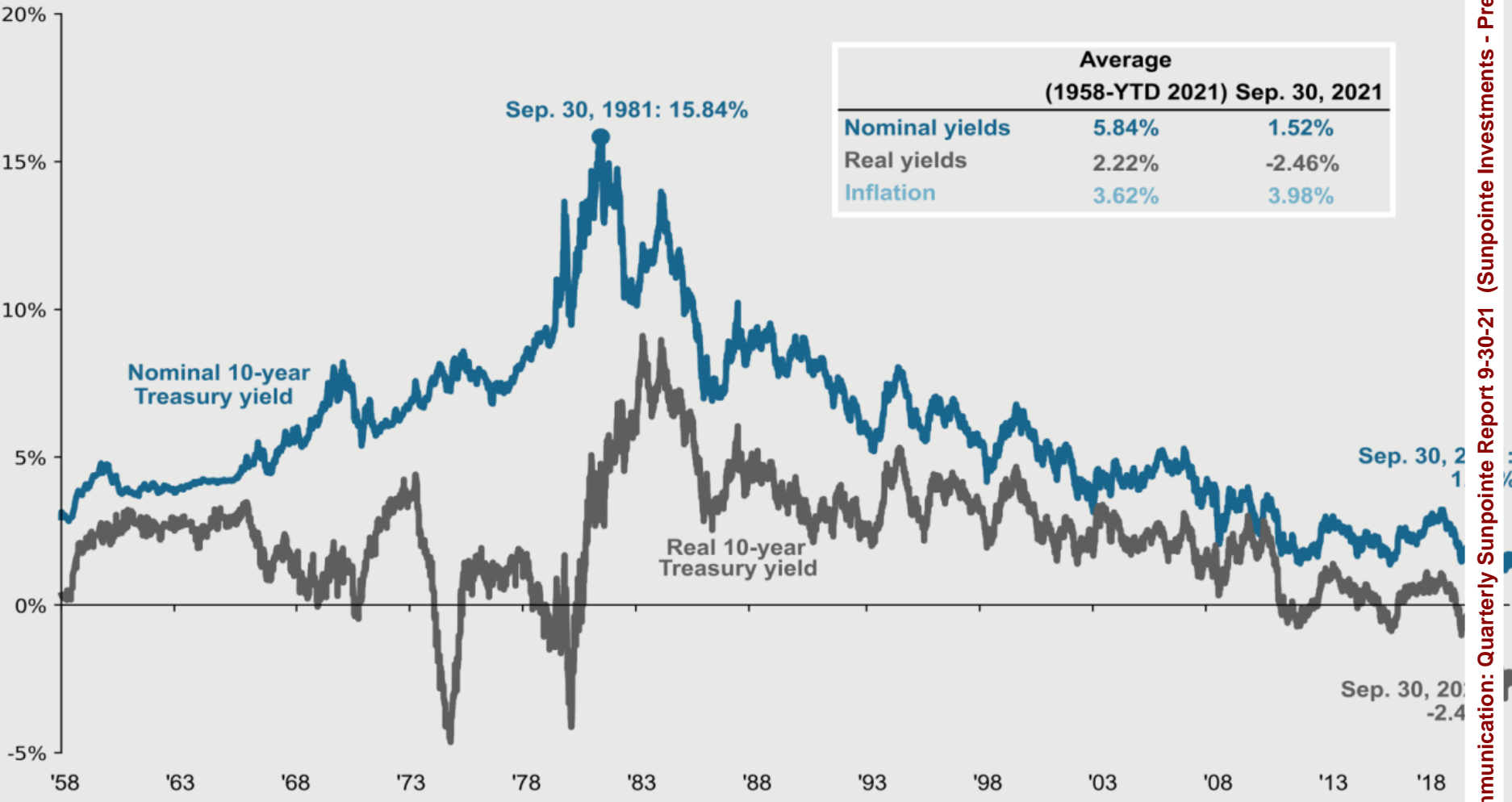
% change vs. prior year, seasonally adjusted



Source: BLS, FactSet, J.P. Morgan Asset Management.

Inflation has continued to rise in recent months, although year-over-year comparisons are skewed by the low level of economic activity through most of 2020. A rise in oil prices, caused by surging economic activity and relatively tight supply, has helped push inflation higher as well.

## Nominal and real 10-year Treasury yields

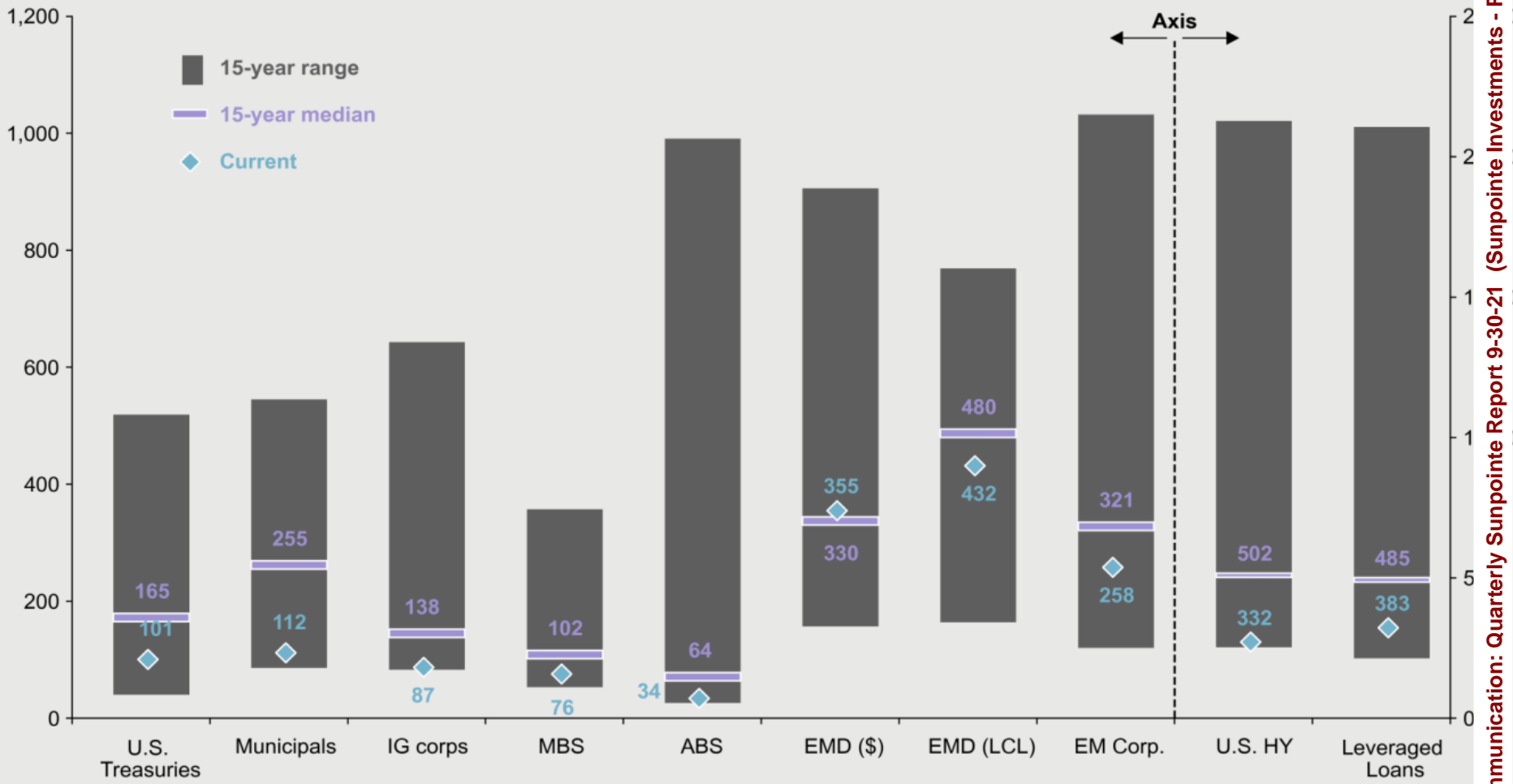


Source: BLS, FactSet, Federal Reserve, J.P. Morgan Asset Management.

Interest rates have risen in recent weeks, with the US ten-year treasury bond yielding 1.52% at the end of September. However, rising inflation numbers leave real yields of most core bonds below zero.

## Spread-to-worst across fixed income sectors

Basis points, past 15 years



Source: Barclays, Bloomberg, FactSet, J.P. Morgan Credit Research, J.P. Morgan Asset Management. Indices used are Barclays except for emerging market debt and leveraged loans:

Fixed income spreads remain very tight (as of 9/30/2021), implying relatively low returns from fixed income going forward.

The charts and information in this presentation are for illustrative purposes only, and are based upon sources of information that Sunpointe, LLC generally considers reliable, however we cannot guarantee, nor have we verified, the accuracy of such independent market information. The charts and information, and the sources utilized in the compilation thereof, are subjective in nature and open to interpretation.

Investment advisory services are offered through Sunpointe Investments, LLC, a Securities and Exchange Commission Registered Investment Advisor. Values are provided by the Custodian as of the date of the report. We believe the sources to be reliable, however, the accuracy and completeness of the information is not guaranteed. In the event of a discrepancy, the Custodian's valuation shall prevail.

Data reflected within this report may reflect data held at various Custodians and may not be covered under SIPC. Certain other reported entities may be SIPC members that provide coverage for assets held there. You should contact your financial representative, or the other entity, or refer to the other entity's statement, regarding SIPC coverage. Assets reflected on this report are not held at the Firm on your behalf, but at the Custodian.

Performance data quoted represents past performance and does not guarantee future results. The investment return and principal of an investment will fluctuate so that an investor's shares when redeemed may be worth more or less than original cost. The values represented in this report may not reflect the true original cost of your initial investment.

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# CITY OF CREVE COEUR PENSION (FIXED INCOME)

*As of September 30, 2021*

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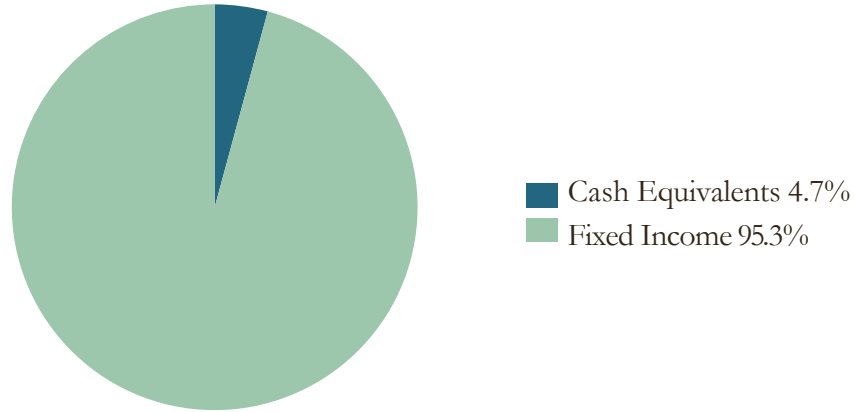
- Sector of Limitations Analysis
- Bond Portfolio Holdings
- Portfolio Holdings

Appendix

# ASSET ALLOCATION SUMMARY

as of September 30, 2021

## Actual Allocation



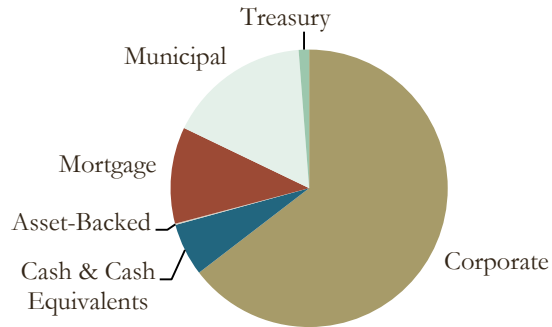
	% of Portfolio	Market Value	Total Cost	Est. Annual Income	Yield
Cash Equivalents	4.70%	\$286,576	\$285,576	\$75	0.03%
Fixed Income Investments	95.30%	\$5,805,977	\$5,527,890	\$170,356	1.77%
Domestic	95.30%	\$5,805,977	\$5,527,890	\$170,356	1.77%
<b>GRAND TOTAL</b>	100.00%	\$6,092,553	\$5,814,466	\$170,431	1.69%

\*Market Values reflected do not include accrued income.

# PORTFOLIO VS. BENCHMARK COMPARISON

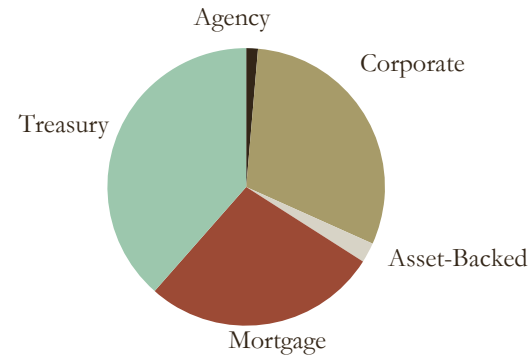
as of September 30, 2021

**City of Creve Coeur (MV: \$6.0MM)**



Asset Class	%
Treasury	1.20
Corporate	64.57
Asset-Backed	0.17
Mortgage	11.25
Municipal	16.66
Cash & Cash Equivalents	6.15
<b>Total</b>	<b>100.00</b>

**BBG Barclays Aggregate**



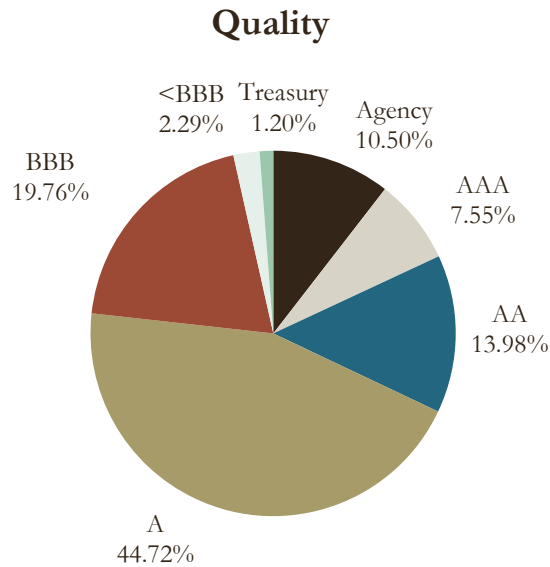
Asset Class	%
Treasury	38.52
Agency	1.36
Corporate	30.37
Asset-Backed	2.33
Mortgage	27.42
<b>Total</b>	<b>100.00</b>

1.67%	YTM	1.57%
7.79	Maturity (yrs)	8.63
6.06	Duration (yrs)	6.71
A+	Quality	AA

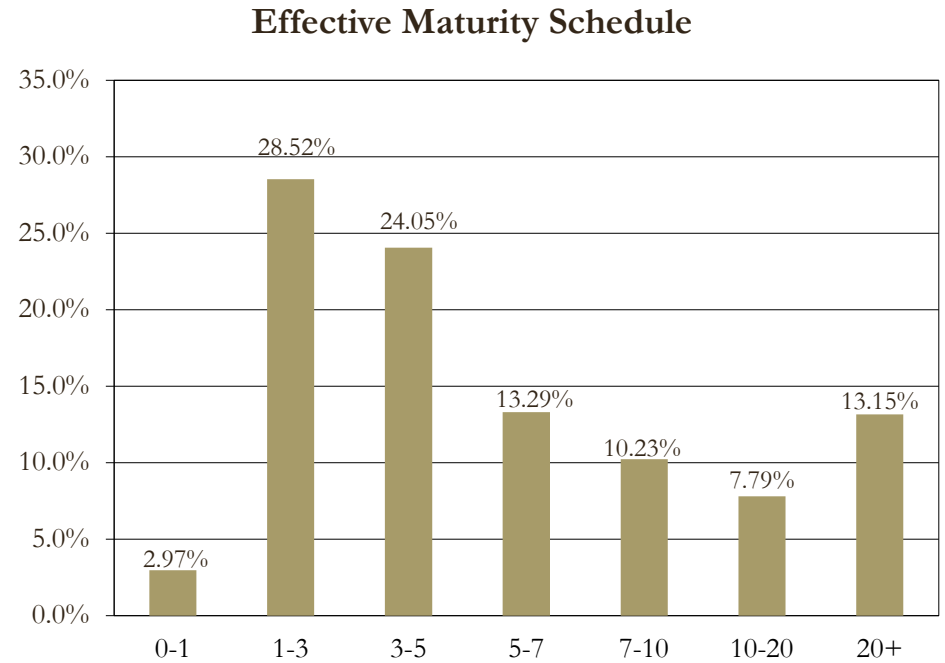
Communication: Quarterly Commerce Bank Report 9-30-21 (Commerce Bank - Report Only)

# BOND PORTFOLIO CHARACTERISTICS

as of September 30, 2021



Average Quality = A+

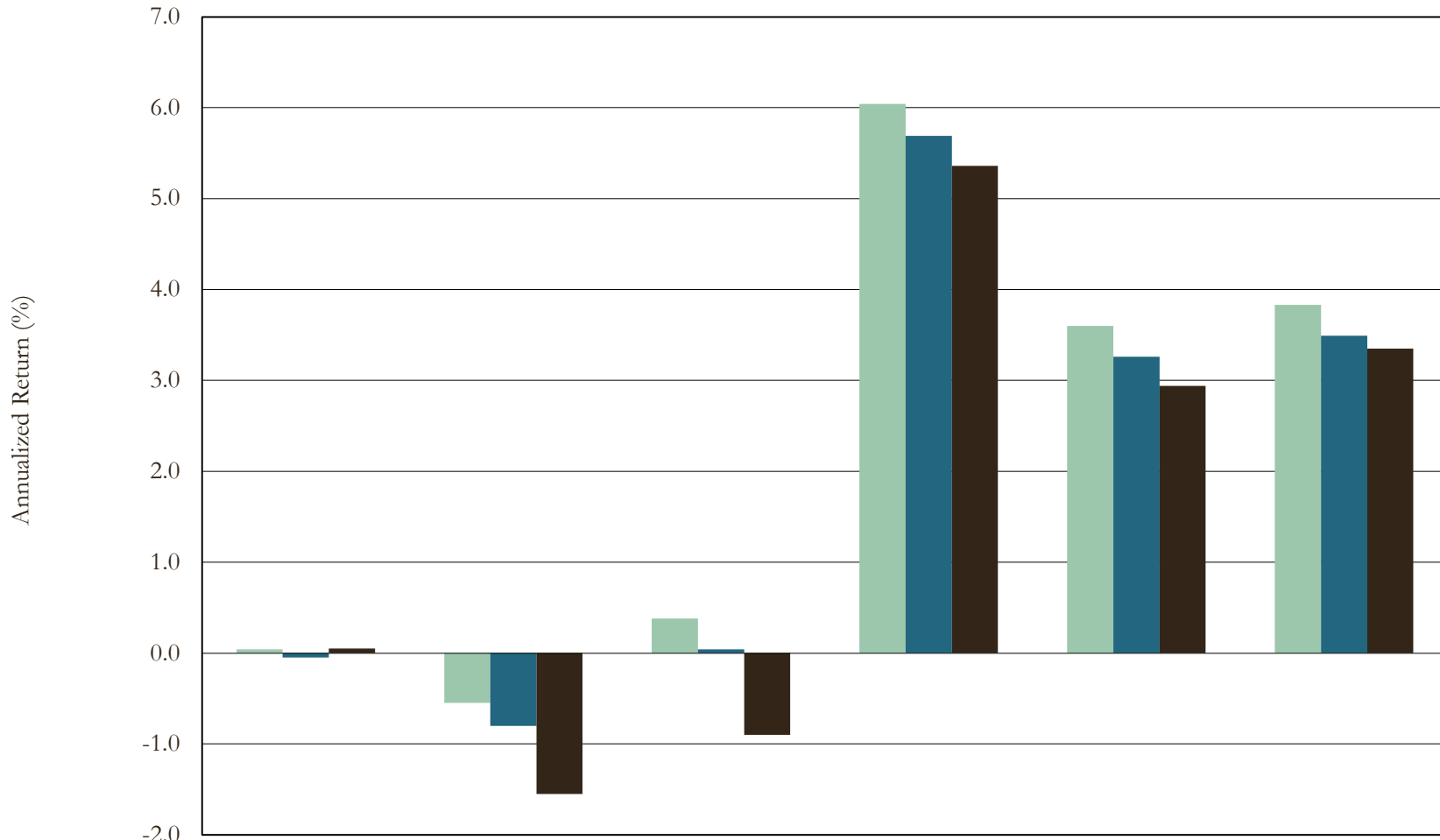


Average Life = 7.79 years

Communication: Quarterly Commerce Bank Report 9-30-21 (Commerce Bank - Report Only)

# FIXED INCOME PERFORMANCE COMPARISON

as of September 30, 2021



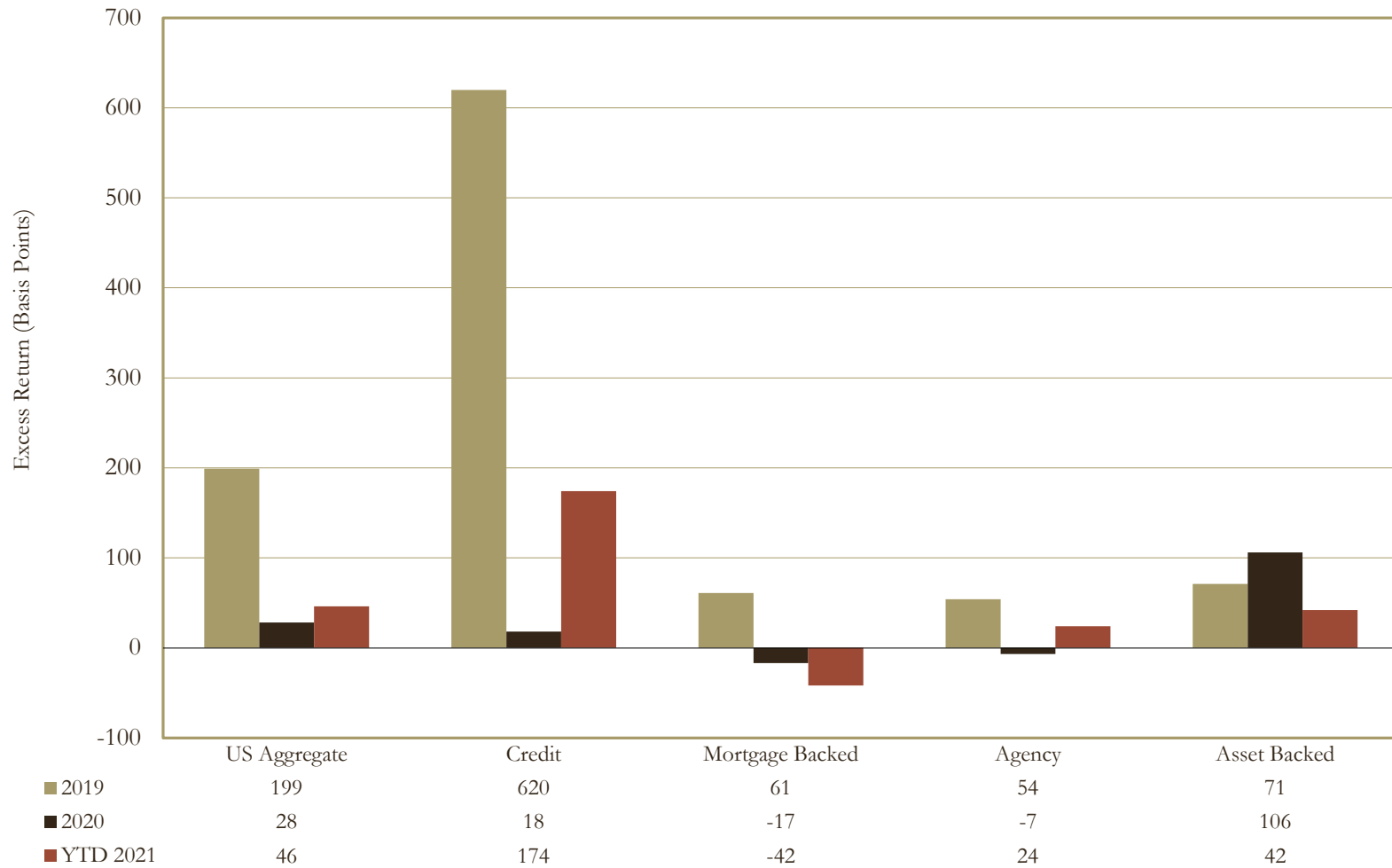
	Quarter	YTD	1 Year	3 Year*	5 Year*	Inception* (9/30/13)
■ City of Creve Coeur (Gross of Fees)	0.04	-0.55	0.38	6.04	3.60	3.83
■ City of Creve Coeur (Net of Fees)	-0.05	-0.80	0.04	5.69	3.26	3.49
■ BBG Barclays Aggregate	0.05	-1.55	-0.90	5.36	2.94	3.35

\*Returns for period greater than one year are annualized, performance is gross of fees

Communication: Quarterly Commerce Bank Report 9-30-21 (Commerce Bank - Report Only)

# DURATION-ADJUSTED EXCESS RETURNS\*

as of 9/30/21

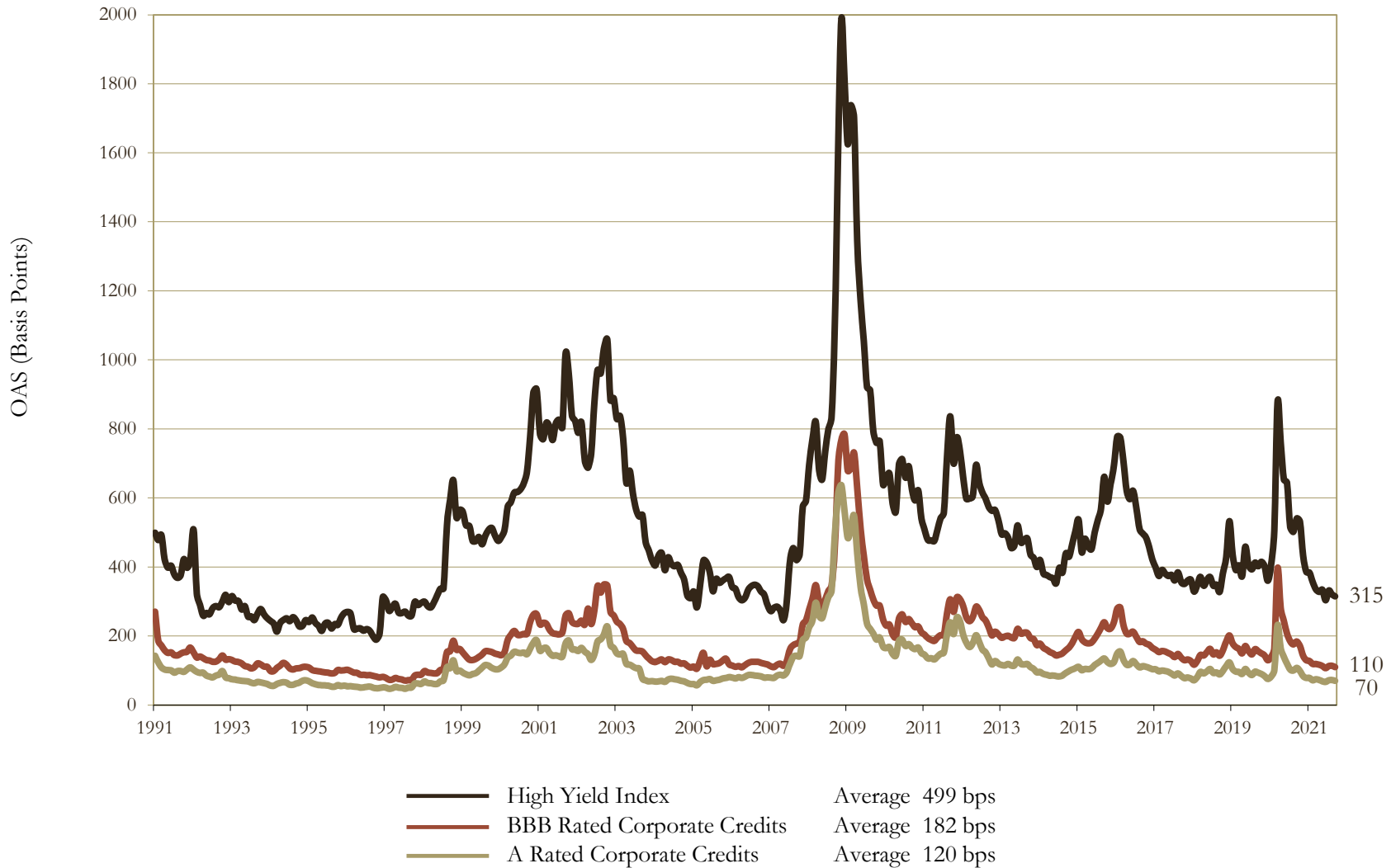


\*versus U.S. Treasuries

Source: BBG Barclays

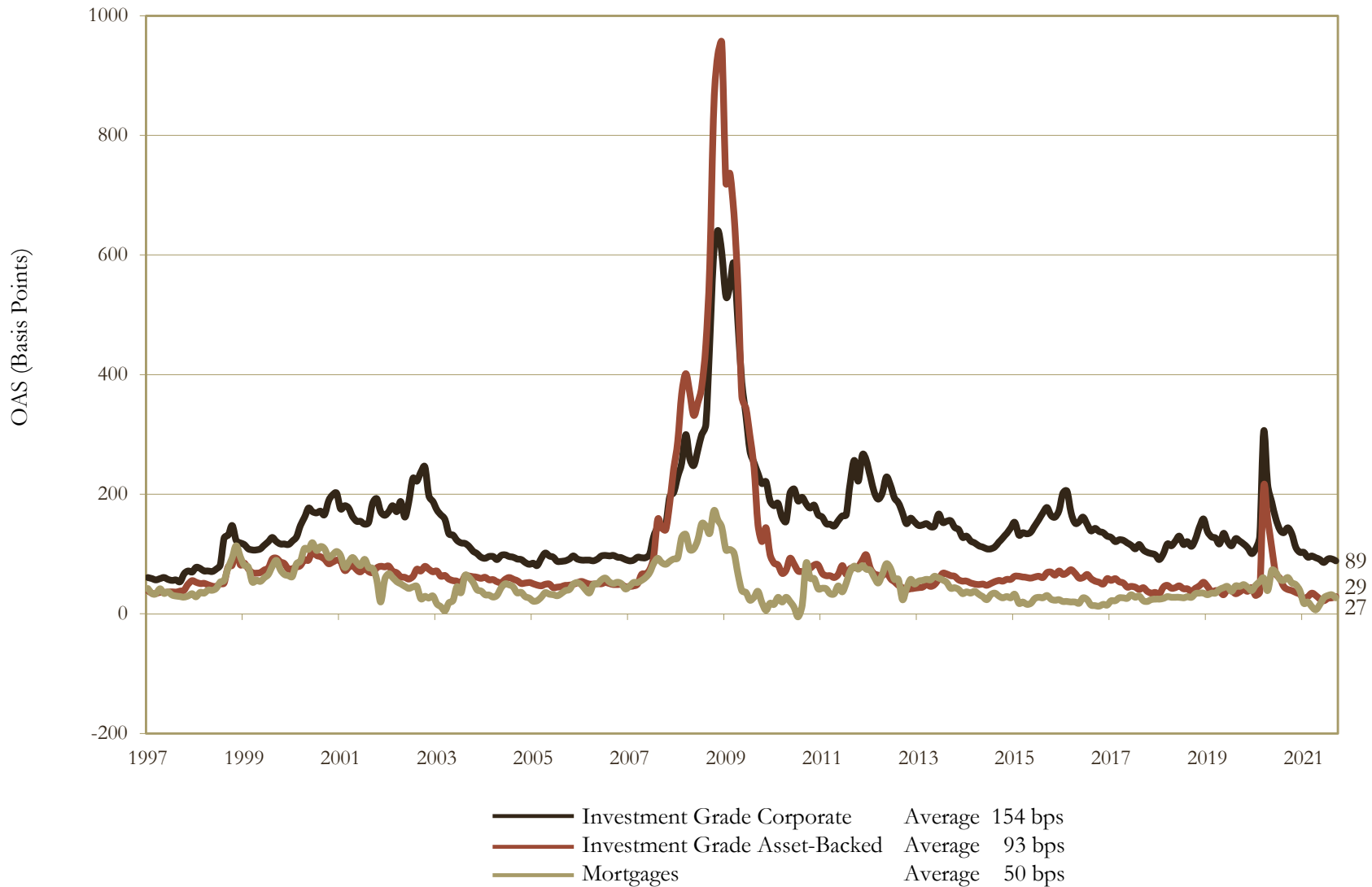
Communication: Quarterly Commerce Bank Report 9-30-21 (Commerce Bank - Report Only)

# CORPORATE CREDIT SPREADS – 1/31/91 through 9/30/21



Source: BBG Barclays, ICE BofA ML

# SECTOR CREDIT SPREADS – 1/31/97 through 9/30/21



Source: BBG Barclays, ICE BofA ML

Communication: Quarterly Commerce Bank Report 9-30-21 (Commerce Bank - Report Only)

# BOND MARKET TOTAL RETURNS

Market	2019	2020	2021 1Q	2021 2Q	2021 3Q	Sept.	YTD
<b>Master Index</b>	8.96%	7.64%	-3.66%	2.04%	-0.03%	-0.97%	-1.73%
<b>Corporate</b>	14.23%	9.81%	-4.50%	3.60%	-0.06%	-1.06%	-1.12%
<b>Treasuries</b>	6.99%	8.22%	-4.61%	2.02%	-0.03%	-1.20%	-2.71%
<b>Agencies</b>	5.87%	5.75%	-1.77%	1.00%	0.01%	-0.60%	-0.78%
<b>Mortgages</b>	6.51%	4.09%	-1.15%	0.32%	0.08%	-0.39%	-0.79%
<b>Asset-Backed</b>	3.80%	3.48%	0.23%	0.46%	0.16%	-0.11%	0.85%
<b>High-Yield</b>	14.40%	6.21%	0.81%	2.75%	0.94%	0.02%	4.55%
<b>Municipal</b>	7.74%	5.26%	-0.36%	1.72%	-0.38%	-0.76%	0.98%
<b>2 Yr Treasury</b>	3.49%	3.03%	-0.03%	-0.08%	0.09%	-0.10%	-0.01%
<b>10 Yr Treasury</b>	8.91%	10.58%	-7.10%	3.23%	-0.31%	-1.97%	-4.40%
<b>30 Yr Treasury</b>	16.34%	18.65%	-16.25%	8.41%	0.03%	-3.42%	-9.18%
<b>TIPS</b>	8.43%	10.99%	-1.47%	3.25%	1.75%	-0.72%	3.51%

Source: BBG Barclays, ICE BofA ML

# THE ECONOMY TODAY

## GROWTH

As the second quarter ended, US GDP had fully recovered from last year's recession and was well above its pre-pandemic level. Massive fiscal stimulus, ongoing zero percent monetary policy, an eventual infrastructure package and a positive vaccination response will continue to drive our recovery forward at a more modest pace against the wave like surge of the COVID delta variant. We have, however, lowered our projected growth over the second half of the year materially given the global COVID rebound in new and ongoing global supply chain disruptions that have yet to clear (even a little). Third quarter growth will likely be about 2%-3%, with somewhat better fourth quarter print still to come, but down substantially from the first half's growth rate of 6.5%.

## JOBS

Unemployment peaked a year ago at a post depression high of 14.7% and has quickly fallen to 5.2% in August. While employment is rebounding strongly, there are still approximately 5.3 million fewer employed today than were prior to the pandemic. Fortunately, the unemployment rate should continue to decline with job openings as measured by the JOLTS, NFIB and Manpower survey at record levels. Help wanted is this recovery's mantra and will be the driving force that transitions our current stimulus led/cyclical re-opening growth towards a longer term self-sustaining economic recovery along with a peaking in COVID cases and continued progress on the vaccination front.

## INTEREST RATES

Monetary policy remains in hyperdrive, but strong growth and rising asset prices have pulled the potential for an unwind of quantitative easing and an eventual boost to short term interest rates forward a bit. In addition, the financial markets remain wide open and bond credit spreads are approaching all time lows. While interest rates have fallen somewhat from this year's March highs, further reduction in the "output gap", and a leveling off of inflation at high levels (August CPI of 5.3% down slightly from the June and July 5.4% year over year pace) will likely continue to put upward pressure on interest rates and hurt bond market returns. We think investors should have shorter maturities and more credit exposure (higher yields) than typical.

## MARKETS

Despite the 34% plunge in the S&P 500 early last year (exactly the average historic loss during a recession), the S&P 500 finished up 18% in 2020. This year it has added nearly another 20% through August. Underneath the index returns has been a tremendous amount of sector rotation with first quarter results cyclically driven as the markets turned from mega cap tech stocks toward value stocks and smaller companies. This trend reversed sharply in the second quarter as FANG names drove the averages higher as the outlook for growth cooled just a bit. Given this on again/off again rotation in equity style, we are evenly weighted between growth and value. International markets are also up and but still lag US returns, while negative China returns have held emerging markets down. We remain one third underweight international asset targets but are actively looking for pockets of overseas value.

## OUTLOOK

After this year's surge in stock prices, we reduced equity exposure back to our normal targets during the third quarter. We also remain underweight bonds while recommending some high yield exposure. The underweight in our bond allocation has been directed initially toward cash with an expected eventual boost in our hedged equity strategies coming at the end of the third quarter. We continue to emphasize domestic mid cap stocks and underweight international markets. With earnings still growing, we remain fully committed to risk-based assets, although most models suggest domestic stock markets are extended and due for consolidation. While we expect some pause in this upward equity trend, particularly in September (weak seasonality), we find it extremely difficult to recommend adding to bond positions that likely lock in a negative real return for our investors with longer term investment horizons.

Source: Commerce Trust Company

# City of Creve Coeur Retirement Analysis of Sector Limitations September 30, 2021

Sector Type	Normal Unit Commitment (% Portfolio)	Max Exposure Per Credit (% Portfolio)	Max Sector Exposure (% Portfolio)	Current (% Portfolio)	Additional Constraints	Constraint	Current
					Average Credit Quality	>=A-	A+
U.S. Treasury Securities	Unlimited	Unlimited	Unlimited	1.2%	Duration	±30% of index	-9.7%
Federal Agency Securities	Unlimited	Unlimited	Unlimited	0.0%	BBB Credits	<=20%	19.8%
Agency Passthroughs/CMOs/Other MBS	2%	5%	60%	11.3%	144A Issues	<=10%	0.0%
Asset Backed Securities	2%	5%	25%	0.2%	Below Investment Grade**	<=5%	2.3%
Corporate Securities	2%	5%	75%	64.6%			
Municipal Securities	2%	5%	20%	16.7%			
Cash & Equivalents	2%	10%	10%	6.2%			

\* Index = BBG Barclays Aggregate

\*\* No below investment grade security may be purchased. Securities downgraded to below the BBB range (up to 5% of the portfolio value) may be held at the manager's discretion - amounts over 5% must be sold within 90 days.

Communication: Quarterly Commerce Bank Report 9-30-21 (Commerce Bank - Report Only)

# Portfolio Position Report

Portfolio: CITY OF CREVE C 8016

Currency: USD

Pricing Date: 09/30/2021

Representative:

Sector 1	CUSIP9	Par (000)	Mkt Val (000)	% Held (MV)	Issuer Name	Coupon	Maturity	Quality	Mdys	S&P	YTM	Avg Life	Eff Dur	Conv (Par)	OAS
<b>CASH</b>		<b>107</b>	<b>107</b>	<b>1.790</b>		<b>0.060</b>	<b>0.085</b>	<b>Aaa</b>	<b>Aaa</b>	<b>AAA</b>	<b>0.060</b>	<b>0.083</b>	<b>0.085</b>	<b>0.000</b>	<b>0</b>
	000000CM9	107	107	1.790	CASH & EQUIVALENTS	0.060	10/31/2021	Aaa	Aaa	AAA	0.060	0.083	0.085	0.000	0
<b>TSY</b>		<b>60</b>	<b>72</b>	<b>1.203</b>		<b>3.125</b>	<b>22.875</b>	<b>Aa1</b>	<b>Aaa</b>	<b>AA+</b>	<b>2.056</b>	<b>22.917</b>	<b>17.549</b>	<b>1.855</b>	<b>4</b>
	912810RH3	60	72	1.203	UNITED STATES TREAS BDS	3.125	08/15/2044	Aa1	TSY	TSY	2.056	22.917	17.549	1.855	4
<b>OGVT</b>		<b>870</b>	<b>922</b>	<b>15.427</b>		<b>2.956</b>	<b>4.584</b>	<b>Aa3</b>	<b>Aa2</b>	<b>AA-</b>	<b>1.341</b>	<b>3.612</b>	<b>3.624</b>	<b>0.007</b>	<b>52</b>
	117068GH3	80	83	1.388	BRUNSWICK CNTY N C ENTERPRI	2.100	04/01/2023	Aa3	Aa3	AA-	0.332	1.500	1.468	0.015	13
	64972C3H4	75	81	1.349	NEW YORK N Y CITY HSG DEV C	3.467	11/01/2023	Aa2	Aa2	AA+	0.550	2.083	2.001	0.025	24
	696543MZ7	55	60	1.002	PALM BEACH CNTY FLA PUB IMP	4.000	11/01/2023	Aa1	Aa1	AAA	0.513	2.083	1.990	0.025	21
	60374Y8A8	50	53	0.893	MINNEAPOLIS MINN TAXABLE GO	4.379	03/01/2034	Aa1	Aa1	AAA	3.643	2.417	2.982	-0.548	124
	033167CH8	75	80	1.341	ANCHORAGE ALASKA CTFS PARTN	3.058	07/01/2024	Aa1	N/A	AA+	0.809	2.750	2.639	0.038	34
	494224PJ1	70	70	1.176	KILLEEN TEX WTRWKS & SWR RE	0.860	08/15/2024	Aa2	N/A	AA	0.742	2.917	2.838	0.042	23
	20772KEV7	65	71	1.181	CONNECTICUT ST TAXABLE GO B	3.693	09/15/2024	A1	Aa3	A+	0.792	3.000	2.827	0.043	27
	613741KQ9	75	79	1.329	MONTGOMERY CNTY VA ECONOMIC	2.342	06/01/2025	Aa3	Aa2	AA-	0.909	3.667	3.516	0.068	22
	650009S20	100	105	1.764	NEW YORK ST TWY AUTH GEN RE	2.406	01/01/2026	A2	A1	A	1.243	4.250	4.055	0.092	42
	45506DK53	75	79	1.317	INDIANA ST FIN AUTH REV TAX	3.300	02/01/2026	A3	N/A	A-	2.222	4.333	4.049	0.093	138
	974450N87	75	84	1.404	WINNEBAGO CNTY ILL TAXABLE	4.150	12/30/2027	Aa3	Aa3	N/A	2.280	5.250	4.879	0.054	94
	56052FUM5	75	77	1.282	MAINE ST HSG AUTH MTG PUR T	2.674	11/15/2035	Aa1	Aa1	AA+	2.568	8.167	9.579	-0.059	79
<b>IND</b>		<b>1,786</b>	<b>2,008</b>	<b>33.591</b>		<b>3.822</b>	<b>9.166</b>	<b>A3</b>	<b>A3</b>	<b>A</b>	<b>1.978</b>	<b>9.054</b>	<b>7.173</b>	<b>0.433</b>	<b>77</b>
	30219GAQ1	40	42	0.699	EXPRESS SCRIPTS HLDG CO	3.000	07/15/2023	A3	NR	A-	0.884	1.667	1.584	0.016	46
	89153UAF8	60	63	1.052	TOTAL CAP CDA LTD	2.750	07/15/2023	A2	A1	A	0.397	1.833	1.745	0.020	15
	61945CAC7	25	27	0.453	MOSAIC CO	4.250	11/15/2023	Baa3	Baa3	BBB	1.088	1.917	1.789	0.021	43
	546268AG8	45	53	0.884	LOUISIANA LD & EXPL CO	7.650	12/01/2023	A3	A3	A-	0.717	2.167	2.000	0.025	39
	84756NAD1	30	33	0.546	SPECTRA ENERGY PARTNERS LP	4.750	03/15/2024	Baa1	Baa1	BBB+	1.168	2.250	2.113	0.027	45
	37045XBW5	35	38	0.637	GENERAL MTRS FINL CO INC	3.950	04/13/2024	Baa3	Baa3	BBB	1.181	2.333	2.242	0.029	62
	66989HAG3	80	87	1.454	NOVARTIS CAPITAL CORP	3.400	05/06/2024	A1	A1	AA-	0.585	2.583	2.477	0.035	15
	69371RR40	60	60	1.002	PACCAR FINANCIAL CORP	0.500	08/09/2024	A1	A1	A+	0.599	2.833	2.837	0.042	9
	377372AM9	75	83	1.387	GLAXOSMITHKLINE CAP INC	3.625	05/15/2025	A2	A2	A	1.044	3.667	3.393	0.064	37
	718337AC2	30	37	0.611	KONINKLIJKE PHILIPS N V	7.750	05/15/2025	Baa1	Baa1	BBB+	2.301	3.667	3.164	0.058	164
	920355AK0	30	33	0.550	VALSPAR CORP	3.950	01/15/2026	Baa2	NR	BBB	1.807	4.083	3.781	0.058	91
	426767AA7	60	63	1.050	HENRY J KAISER FAMILY FNDTN	3.356	12/01/2025	Aaa	N/A	AAA	2.469	4.167	3.867	0.085	167
	74834LAZ3	40	44	0.735	QUEST DIAGNOSTICS INC	3.450	06/01/2026	Baa2	Baa2	BBB+	1.507	4.417	4.154	0.069	55
	110122AB4	55	72	1.200	BRISTOL-MYERS SQUIBB CO	6.800	11/15/2026	A2	A2	A+	1.187	5.167	4.433	0.119	21
	05565QDN5	100	110	1.833	BP CAP MKTS P L C	3.279	09/19/2027	A3	A2	A-	1.610	5.750	5.357	0.133	44
	12541WAA8	40	46	0.770	C H ROBINSON WORLDWIDE IN	4.200	04/15/2028	Baa2	Baa2	BBB+	2.056	6.333	5.599	0.163	80
	28176EAD0	40	46	0.775	EDWARDS LIFESCIENCES CORP	4.300	06/15/2028	Baa2	Baa2	BBB	1.981	6.500	5.753	0.173	70
	801060AD6	50	57	0.956	SANOFI	3.625	06/19/2028	A1	A1	AA	1.539	6.500	5.895	0.176	26
	037833EH9	65	64	1.072	APPLE INC	1.400	08/05/2028	Aa1	Aa1	AA+	1.656	6.833	6.555	0.223	36
	007944AF8	100	105	1.759	ADVENTIST HEALTH SYS WEST	2.952	03/01/2029	A2	N/A	A	2.235	7.167	6.623	0.218	90
	89352LAG5	25	35	0.579	TRANSCANADA PIPELINE STRIP	7.700	06/15/2029	Baa1	Baa1	BBB+	2.521	7.750	6.136	0.231	124
	05723KAG5	55	60	0.999	BAKER HUGHES A GE CO LLC / B	3.138	11/07/2029	A3	A3	A-	2.152	7.833	7.076	0.259	77
	806854AJ4	75	78	1.302	SCHLUMBERGER INVT SA	2.650	06/26/2030	A2	A2	A	2.262	8.500	7.761	0.311	85

Communication: Quarterly Commerce Bank Report 9-30-21 (Commerce Bank - Report Only)

# Portfolio Position Report

Portfolio: CITY OF CREVE C 8016

Currency: USD

Pricing Date: 09/30/2021

Representative:

Sector 1	CUSIP9	Par (000)	Mkt Val (000)	% Held (MV)	Issuer Name	Coupon	Maturity	Quality	Mdys	S&P	YTM	Avg Life	Eff Dur	Conv (Par)	OAS
	231021AT3	65	62	1.040	CUMMINS INC	1.500	09/01/2030	A2	A2	A+	2.055	8.917	8.360	0.359	62
	717081FB4	65	64	1.063	PFIZER INC	1.750	08/18/2031	A2	A2	A+	2.023	9.917	9.089	0.430	54
	097023AG0	36	54	0.905	BOEING CO	8.625	11/15/2031	Baa3	Baa2	BBB-	3.164	10.167	7.373	0.346	176
	898384AQ5	60	73	1.223	TRUSTEES UNION COLLEGE	4.877	07/01/2035	A1	A1	N/A	3.031	13.750	10.510	0.674	140
	902133AG2	25	39	0.646	TYCO ELECTRONICS GROUP S A	7.125	10/01/2037	Baa1	Baa1	A-	3.081	16.000	10.837	0.766	138
	92343VFT6	50	47	0.792	VERIZON COMMUNICATIONS INC	2.650	11/20/2040	Baa1	Baa1	BBB+	3.084	19.167	15.069	1.328	113
	12189LAG6	40	52	0.867	BURLINGTON NORTHN SANTA FE C	4.950	09/15/2041	A3	A3	AA-	2.985	19.500	13.865	1.188	105
	038222AG0	40	59	0.988	APPLIED MATLS INC	5.850	06/15/2041	A2	A2	A	2.800	19.750	13.403	1.160	91
	13645RAQ7	25	34	0.564	CANADIAN PAC RY CO NEW	5.750	01/15/2042	Baa2	Baa2	BBB+	3.438	20.333	13.399	1.176	154
	035242AB2	55	61	1.020	ANHEUSER BUSCH INBEV FIN INC	4.000	01/17/2043	Baa1	Baa1	BBB+	3.338	21.333	15.002	1.427	138
	655844BQ0	35	43	0.723	NORFOLK SOUTHN CORP	4.450	06/15/2045	Baa1	Baa1	BBB+	3.116	23.250	15.716	1.584	112
	384802AB0	40	52	0.867	GRAINGER W W INC	4.600	06/15/2045	A3	A3	A+	2.942	23.250	15.736	1.587	94
	0778FPAH2	35	35	0.589	BELL TEL CO CDA-BELL	3.200	02/15/2052	Baa1	Baa1	BBB+	3.192	29.917	19.824	2.548	112
<b>FIN</b>		<b>1,285</b>	<b>1,397</b>	<b>23.376</b>		<b>3.064</b>	<b>7.167</b>	<b>A3</b>	<b>A3</b>	<b>A-</b>	<b>1.436</b>	<b>6.996</b>	<b>5.395</b>	<b>0.358</b>	<b>53</b>
	06051GGK9	45	46	0.773	BK OF AMERICA CORP	2.881	04/24/2023	A3	A2	A-	0.885	0.583	0.557	0.003	35
	12572QAE5	30	31	0.516	CME GROUP INC	3.000	09/15/2022	Aa3	Aa3	AA-	0.275	1.000	0.950	0.007	17
	44644MAA9	80	82	1.368	HUNTINGTON NATIONAL BANK MAR	1.800	02/03/2023	A3	A3	A-	0.393	1.250	1.251	0.006	14
	828807DD6	75	78	1.307	SIMON PPTY GROUP LP	2.750	06/01/2023	A3	A3	A-	0.796	1.417	1.384	0.012	28
	59523UAA5	25	27	0.454	MID-AMERICA APTS LP	4.300	10/15/2023	Baa1	Baa1	BBB+	1.069	1.833	1.704	0.019	39
	89114QCJ5	85	85	1.423	TORONTO DOMINION BANK	0.450	09/11/2023	A2	A1	A	0.442	1.917	1.936	0.024	16
	42217KBC9	25	27	0.453	WELLTOWER INC	4.500	01/15/2024	Baa1	Baa1	BBB+	1.230	2.083	1.949	0.024	56
	808513BU8	75	82	1.370	CHARLES SCHWAB CORP	3.750	04/01/2024	N/A	N/A	N/A	0.784	2.417	2.330	0.031	30
	929089AD2	35	37	0.624	VOYA FINANCIAL INC	3.125	07/15/2024	Baa2	Baa2	BBB+	0.957	2.667	2.527	0.028	39
	0641596E1	55	55	0.920	BANK NOVA SCOTIA B C	0.650	07/31/2024	A3	A2	A-	0.716	2.833	2.805	0.042	21
	14040HBT1	35	38	0.636	CAPITAL ONE FINL CORP	3.300	10/30/2024	Baa2	Baa1	BBB	0.905	3.000	2.849	0.041	31
	38141GWQ3	50	53	0.893	GOLDMAN SACHS GROUP INC	3.272	09/29/2025	Baa1	A2	BBB+	1.061	3.000	2.883	0.042	44
	00912XBA1	35	37	0.619	AIR LEASE CORP	3.250	03/01/2025	Baa2	N/A	BBB	1.587	3.250	3.122	0.034	91
	03076CAK2	60	65	1.081	AMERIPRISE FINL INC	3.000	04/02/2025	A3	A3	A-	1.190	3.417	3.243	0.047	52
	59156RBQ0	55	61	1.019	METLIFE INC	3.600	11/13/2025	A3	A3	A-	1.259	3.833	3.632	0.058	39
	69349LAQ1	55	63	1.047	PNC BK N A PITTSBURGH PA DIS	4.200	11/01/2025	A3	A3	A-	1.171	4.000	3.690	0.075	35
	78016EZQ3	60	60	1.002	ROYAL BK CDA	1.200	04/27/2026	A2	A2	A	1.350	4.583	4.447	0.110	44
	49327V2A1	45	49	0.827	KEYBANK NATIONAL ASSOCIATION	3.400	05/20/2026	Baa1	Baa1	BBB+	1.481	4.667	4.298	0.106	58
	254709AM0	30	34	0.562	DISCOVER FINL SVCS	4.100	02/09/2027	Baa3	Baa3	BBB-	1.865	5.083	4.694	0.110	77
	95000U2F9	70	76	1.267	WELLS FARGO & CO	3.196	06/17/2027	Baa1	A1	BBB+	1.537	5.750	4.416	0.106	65
	172967KU4	30	34	0.564	CITIGROUP INC	4.125	07/25/2028	Baa2	Baa2	BBB	2.278	6.833	6.036	0.212	102
	46625HHV5	55	77	1.281	JPMORGAN CHASE & CO	5.500	10/15/2040	A3	A2	A-	2.966	19.083	13.062	1.102	110
	026874DA2	30	37	0.618	AMERICAN INTL GROUP INC	4.500	07/16/2044	Baa2	Baa2	BBB+	3.133	22.333	15.302	1.488	115
	743315AQ6	55	63	1.048	PROGRESSIVE CORP	3.700	01/26/2045	A2	A2	A	2.913	23.333	16.547	1.724	92
	89417EAK5	55	68	1.146	TRAVELERS COMPANIES INC	4.300	08/25/2045	A2	A2	A	2.897	23.417	16.202	1.658	89
	361448BH5	35	33	0.558	GATX CORP	3.100	06/01/2051	Baa2	Baa2	BBB	3.409	29.667	19.301	2.432	134
<b>UTIL</b>		<b>406</b>	<b>454</b>	<b>7.603</b>		<b>3.777</b>	<b>20.212</b>	<b>A2</b>	<b>A1</b>	<b>A+</b>	<b>2.690</b>	<b>19.999</b>	<b>13.401</b>	<b>1.464</b>	<b>104</b>

Communication: Quarterly Commerce Bank Report 9-30-21 (Commerce Bank - Report Only)

# Portfolio Position Report

Portfolio: CITY OF CREVE C 8016

Currency: USD

Pricing Date: 09/30/2021

Representative:

Sector 1	CUSIP9	Par (000)	Mkt Val (000)	% Held (MV)	Issuer Name	Coupon	Maturity	Quality	Mdys	S&P	YTM	Avg Life	Eff Dur	Conv (Par)	OAS
	26444GAB9	21	21	0.354	DUKE ENERGY FL A- A21	1.731	09/01/2024	Aaa	Aaa	AAA	0.671	0.667	0.628	0.004	58
	68233JAZ7	75	81	1.349	ONCOR ELEC DELIVERY CO LLC	2.950	04/01/2025	A2	A2	A+	1.197	3.250	3.115	0.027	47
	665772CB3	45	65	1.084	NORTHERN STS PWR CO WIS	6.250	06/01/2036	A2	Aa3	A	2.753	14.667	10.601	0.707	110
	595620AL9	50	64	1.073	MIDAMERICAN ENERGY COMPANY	4.800	09/15/2043	A1	Aa2	A+	3.039	21.500	14.858	1.393	107
	842400FZ1	50	59	0.983	SOUTHERN CALIF EDISON CO	4.650	10/01/2043	A3	A3	A-	3.642	21.500	14.330	1.334	168
	66765RCH7	40	45	0.751	NORTHWEST NAT GAS CO	3.869	06/15/2049	A2	A2	AA-	3.258	27.250	17.796	2.072	122
	29364WBD9	75	73	1.224	ENTERGY LA LLC	2.900	03/15/2051	A2	A2	A	3.035	29.500	20.151	2.565	96
	209111FZ1	50	47	0.786	CONSOLIDATED EDISON CO N Y I	3.000	12/01/2060	Baa1	Baa1	A-	3.325	39.167	22.817	3.600	124
<b>PASS</b>		<b>197</b>	<b>210</b>	<b>3.508</b>		<b>3.114</b>	<b>5.378</b>	<b>Aa1</b>	<b>Aaa</b>	<b>AA+</b>	<b>1.540</b>	<b>5.378</b>	<b>3.405</b>	<b>-0.913</b>	<b>18</b>
	3138EPA46	11	11	0.190	FNMA POOL - AL6326	2.500	01/01/2030	Aa1	AGY	AGY	1.305	2.583	2.033	-0.280	48
	3138X6NG6	15	16	0.264	FNMA POOL - AU6690	2.500	09/01/2028	Aa1	AGY	AGY	0.486	2.583	1.858	-0.323	-30
	3140Q87E9	18	20	0.330	FNMA UMBS POOL - CA1792	4.500	03/01/2038	Aa1	AGY	AGY	1.648	3.500	3.052	0.007	68
	3138WD2G5	27	30	0.495	FNMA UMBS POOL - AS4374	3.500	02/01/2045	Aa1	AGY	AGY	1.148	4.167	2.564	-0.676	-4
	3140HP7C5	22	25	0.414	FNMA UMBS POOL - BK9890	5.000	08/01/2048	Aa1	AGY	AGY	1.848	4.250	3.599	-0.175	71
	31418CWM2	17	18	0.294	FNMA POOL - MA3351	3.000	04/01/2048	Aa1	AGY	AGY	2.218	4.333	3.480	-0.670	54
	3132J7YK2	38	41	0.693	FHLMC GOLD POOL - Q16613	3.000	03/01/2043	Aa1	AGY	AGY	1.367	5.750	2.799	-1.719	-10
	3140XBHD5	49	50	0.829	FNMA UMBS POOL - FM7427	2.000	05/01/2051	Aa1	AGY	AGY	1.869	9.000	5.238	-1.534	3
<b>CMO</b>		<b>450</b>	<b>463</b>	<b>7.748</b>		<b>2.291</b>	<b>4.880</b>	<b>Aa1</b>	<b>Aaa</b>	<b>AA+</b>	<b>1.500</b>	<b>4.880</b>	<b>3.501</b>	<b>-1.078</b>	<b>9</b>
	3137F4N65	3	3	0.050	FHLMC 4776- DW	4.000	09/15/2044	Aa1	AGY	AGY	2.133	0.083	0.034	0.045	75
	3137B6B34	6	6	0.103	FHLMC 4272- DG	3.000	04/15/2043	Aa1	AGY	AGY	1.468	1.667	1.875	-0.380	91
	3136A9KS6	14	14	0.239	FNMA 2012-114- ND	2.000	10/25/2041	Aa1	AGY	AGY	1.054	2.083	2.027	-0.814	13
	3136AMQD4	16	16	0.276	FNMA 2015-002- PA	2.250	03/25/2044	Aa1	AGY	AGY	0.848	2.167	2.497	-0.413	8
	35564CAN7	43	45	0.761	FHLMC SLSTT 2018-002- A1	3.500	11/25/2028	N/A	N/A	N/A	1.370	2.750	1.946	-0.492	50
	3136B6K36	70	73	1.227	FNMA 2019-068- KP	2.500	11/25/2049	Aa1	AGY	AGY	1.161	3.667	3.873	-0.012	-29
	3136A2JE4	24	26	0.430	FNMA 2011-111- ME	4.000	11/25/2041	Aa1	AGY	AGY	2.130	4.000	3.789	-0.211	95
	3136BGTH4	64	65	1.087	FNMA 2021-051- JB	2.000	08/25/2051	Aa1	AGY	AGY	1.694	4.917	3.770	-1.057	15
	3137H23T9	65	66	1.108	FHLMC 5140- H	2.000	08/25/2046	Aa1	AGY	AGY	1.650	5.583	3.132	-1.644	12
	3136BGD99	65	65	1.085	FNMA 2021-060- ND	1.500	09/25/2051	Aa1	AGY	AGY	1.557	5.833	4.331	-1.198	-2
	3137FWYV6	80	83	1.382	FHLMC 5020- KW	2.000	09/25/2045	Aa1	AGY	AGY	1.545	7.500	4.072	-2.357	-13
<b>ABS</b>		<b>10</b>	<b>10</b>	<b>0.166</b>		<b>0.831</b>	<b>3.738</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>0.675</b>	<b>3.738</b>	<b>0.668</b>	<b>0.586</b>	<b>72</b>
	45254NQR1	1	1	0.017	IMPAC CMB TR 2005-006- 2A2	0.886	10/25/2035	N/A	N/A	NR	0.410	1.417	0.407	0.299	47
	45254NLP0	9	9	0.149	IMPAC SEC 2004-010- 4A1	0.824	03/25/2035	N/A	N/A	NR	0.705	4.000	0.698	0.619	75
<b>MUNI</b>		<b>70</b>	<b>73</b>	<b>1.228</b>		<b>2.750</b>	<b>11.676</b>	<b>Aa3</b>	<b>Aa3</b>	<b>AA-</b>	<b>2.365</b>	<b>4.667</b>	<b>7.120</b>	<b>-1.367</b>	<b>107</b>
	76804ADA0	70	73	1.228	RIVER CITY INC KY PKG AUTH	2.750	12/01/2033	Aa3	Aa3	AA-	2.365	4.667	7.120	-1.367	107
<b>MM</b>		<b>260</b>	<b>260</b>	<b>4.359</b>		<b>0.650</b>	<b>2.867</b>	<b>Aaa</b>	<b>Aaa</b>	<b>AAA</b>	<b>0.614</b>	<b>2.867</b>	<b>2.839</b>	<b>0.042</b>	<b>11</b>
	38149MXZ1	130	130	2.176	GOLDMAN SACHS BK USA	0.600	08/12/2024	N/A	N/A	N/A	0.611	2.867	2.841	0.042	10
	795451AL7	130	130	2.182	SALLIE MAE BANK CD	0.700	08/12/2024	Aaa	Aaa	AAA	0.617	2.867	2.837	0.042	11
<b>Total:</b>		<b>5,501</b>	<b>5,976</b>	<b>100.000</b>		<b>3.105</b>	<b>8.116</b>	<b>A1</b>	<b>A1</b>	<b>A+</b>	<b>1.665</b>	<b>7.787</b>	<b>6.064</b>	<b>0.234</b>	<b>58</b>

Communication: Quarterly Commerce Bank Report 9-30-21 (Commerce Bank - Report Only)

# PORTFOLIO HOLDINGS

CITY OF CREVE COEUR EMP RETIREMENT | 910048016 | as of 09/30/2021

Communication: Quarterly Commerce Bank Report 9-30-21 (Commerce Bank - Report Only)

	TICKER	% OF PORTFOLIO	QUANTITY	PRICE	MARKET VALUE	UNIT COST	TOTAL COST	EST. ANNUAL INCOME	YIELD
<b>Cash Equivalents</b>									
<b>Cash Equivalents</b>									
FINANCIAL SQUARE TR GOVERNMENT INSTITUTIONAL CLASS FD #465	FGTXX	4.70%	286,576	1.00	\$286,576	1.00	\$286,576	\$75	0.03%
<b>Total for Cash Equivalents</b>		<b>4.70%</b>			<b>\$286,576</b>		<b>\$286,576</b>	<b>\$75</b>	<b>0.03%</b>
<b>TOTAL FOR CASH EQUIVALENTS</b>		<b>4.70%</b>			<b>\$286,576</b>		<b>\$286,576</b>	<b>\$75</b>	<b>0.03%</b>
<b>Fixed Income Investments</b>									
<b>Agencies</b>									
GOLDMAN SACHS BK MKT CD 0.6% 8/12/24 FDIC #33124		2.13%	130,000	99.97	\$129,957	100.00	\$130,000	\$780	0.61%
SALLIE MAE MKT CD 0.7% 8/12/24 FDIC #58177		2.14%	130,000	100.25	\$130,326	100.00	\$130,000	\$910	0.61%
<b>Total for Agencies</b>		<b>4.27%</b>			<b>\$260,283</b>		<b>\$260,000</b>	<b>\$1,690</b>	<b>0.61%</b>
<b>Credit</b>									
BANK OF AMERICA NT V/R 4/24/23		0.75%	45,000	101.39	\$45,626	100.00	\$45,000	\$1,296	0.42%
CME GROUP INC NT 3% 9/15/22		0.51%	30,000	102.61	\$30,782	98.95	\$29,684	\$900	0.28%
HUNTINGTON NATL BK NT 1.8% 2/3/23		1.34%	80,000	101.88	\$81,505	102.83	\$82,266	\$1,440	0.30%
SIMON PPTY NT 2.75% 6/1/23		1.27%	75,000	103.23	\$77,425	99.82	\$74,864	\$2,063	0.46%
EXPRESS SCRIPTS NT 3% 7/15/23		0.68%	40,000	103.75	\$41,501	101.76	\$40,704	\$1,200	0.67%
TOTAL CAP CANADA NT 2.75% 7/15/23		1.03%	60,000	104.20	\$62,518	98.33	\$58,999	\$1,650	0.40%
TORONTO DOMINION BK NT 0.45% 9/11/23		1.40%	85,000	100.02	\$85,013	99.86	\$84,878	\$383	0.44%
MID AMERICA APT LP NT 4.3% 10/15/23		0.44%	25,000	106.51	\$26,627	99.05	\$24,762	\$1,075	0.64%
MOSAIC CO NT 4.25% 11/15/23		0.44%	25,000	106.62	\$26,656	99.79	\$24,948	\$1,063	0.69%
LA LAND & EXPL DEB 7.65% 12/01/23		0.85%	45,000	114.90	\$51,703	129.94	\$58,473	\$3,443	0.72%
HEALTH CARE REIT NT 4.5% 1/15/24		0.44%	25,000	107.37	\$26,842	98.96	\$24,740	\$1,125	0.85%
SPECTRA ENERGY NT 4.75% 3/15/24		0.54%	30,000	108.66	\$32,597	99.77	\$29,930	\$1,425	0.79%
CHARLES SCHWAB CORP NT 3.75% 4/1/24		1.32%	75,000	107.34	\$80,503	100.00	\$75,000	\$2,813	0.69%
GENERAL MOTORS FIN NT 3.95% 4/13/24		0.61%	35,000	106.90	\$37,414	99.83	\$34,941	\$1,383	1.00%
NOVARTIS CAP NT 3.4% 5/6/24		1.41%	80,000	107.25	\$85,802	110.24	\$88,191	\$2,720	0.59%

Bond Yield is Market Yield

# PORTFOLIO HOLDINGS

CITY OF CREVE COEUR EMP RETIREMENT | 910048016 | as of 09/30/2021

TICKER	% OF PORTFOLIO	QUANTITY	PRICE	MARKET VALUE	UNIT COST	TOTAL COST	EST. ANNUAL INCOME	YIELD
VOYA FINL NT 3.125% 7/15/24	0.61%	35,000	105.96	\$37,085	99.70	\$34,895	\$1,094	0.83%
BANK OF NOVA SCOTIA NT 0.65% 7/31/24	0.90%	55,000	99.82	\$54,898	99.91	\$54,951	\$358	0.72%
PACCAR FINANCIAL NT 0.5% 8/9/24	0.98%	60,000	99.72	\$59,832	99.95	\$59,968	\$300	0.60%
GOLDMAN SACHS NT V/R 9/29/25	0.88%	50,000	106.77	\$53,384	100.00	\$50,000	\$1,636	0.98%
CAPITAL ONE FIN NT 3.3% 10/30/24	0.62%	35,000	107.27	\$37,543	99.71	\$34,898	\$1,155	0.84%
AIR LEASE NT 3.25% 3/1/25	0.61%	35,000	105.51	\$36,930	102.06	\$35,720	\$1,138	1.51%
ONCOR ELEC NT 2.95% 4/1/25	1.30%	75,000	106.00	\$79,496	95.39	\$71,544	\$2,213	1.07%
AMERIPRISE FINANCIAL NT 3% 4/2/25	1.05%	60,000	106.20	\$63,718	107.11	\$64,263	\$1,800	1.15%
GLAXOSMITHKLINE NT 3.625% 5/15/25	1.34%	75,000	109.16	\$81,869	112.76	\$84,569	\$2,719	1.04%
KONINKLIJKE PHILIPS NT 7.75% 5/15/25	0.59%	30,000	118.84	\$35,653	127.27	\$38,180	\$2,325	2.27%
PNC BANK NA NT 4.2% 11/1/25	1.01%	55,000	112.05	\$61,629	99.97	\$54,984	\$2,310	1.12%
METLIFE NT 3.6% 11/13/25	0.99%	55,000	109.37	\$60,151	99.99	\$54,996	\$1,980	1.12%
HENRY J KAISER FMY NT 3.356% 12/1/25	1.02%	60,000	103.49	\$62,094	100.00	\$60,000	\$2,014	2.47%
VALSPAR CORP NT 3.95% 1/15/26	0.54%	30,000	108.81	\$32,643	99.56	\$29,868	\$1,185	1.69%
ROYAL BK OF CANADA NT 1.2% 4/27/26	0.98%	60,000	99.34	\$59,603	100.14	\$60,085	\$720	1.35%
KEY BANK NT 3.4% 5/20/26	0.80%	45,000	108.57	\$48,858	111.63	\$50,233	\$1,530	1.48%
QUEST DIAGNOSTICS NT 3.45% 6/1/26	0.71%	40,000	108.73	\$43,491	94.87	\$37,949	\$1,380	1.41%
WELLS FARGO NT V/R 6/17/27	1.23%	70,000	107.30	\$75,108	100.00	\$70,000	\$2,237	1.58%
BRISTOL MYERS NT 6.8% 11/15/26	1.15%	55,000	127.83	\$70,304	127.55	\$70,151	\$3,740	1.19%
DISCOVER FINANCIAL NT 4.1% 2/9/27	0.55%	30,000	111.34	\$33,403	112.60	\$33,780	\$1,230	1.77%
BP CAPITAL MARKETS NT 3.279% 9/19/27	1.80%	100,000	109.46	\$109,462	100.00	\$100,000	\$3,279	1.54%
CH ROBINSON NT 4.2% 4/15/28	0.74%	40,000	113.06	\$45,224	115.65	\$46,258	\$1,680	1.98%
EDWARDS LIFESCIENCES NT 4.3% 6/15/28	0.75%	40,000	114.50	\$45,800	99.77	\$39,907	\$1,720	1.90%
SANOFI NT 3.625% 6/19/28	0.93%	50,000	113.27	\$56,634	99.27	\$49,635	\$1,813	1.46%
CITIGROUP INC NT 4.125% 7/25/28	0.55%	30,000	111.60	\$33,481	99.69	\$29,907	\$1,238	2.28%
APPLE INC NT 1.4% 8/5/28	1.05%	65,000	98.35	\$63,927	99.77	\$64,853	\$910	1.66%
ADVENT HLTH SYST 2.952% 3/1/29	1.72%	100,000	104.88	\$104,876	100.00	\$100,000	\$2,952	2.21%
TRANSCANADA NT 7.7% 6/15/29	0.56%	25,000	136.07	\$34,019	139.41	\$34,853	\$1,925	2.52%
BAKER HUGHES NT 3.138% 11/7/29	0.97%	55,000	107.29	\$59,011	108.55	\$59,701	\$1,726	2.13%

Bond Yield is Market Yield

Communication: Quarterly Commerce Bank Report 9-30-21 (Commerce Bank - Report Only)

# PORTFOLIO HOLDINGS

CITY OF CREVE COEUR EMP RETIREMENT | 910048016 | as of 09/30/2021

TICKER	% OF PORTFOLIO	QUANTITY	PRICE	MARKET VALUE	UNIT COST	TOTAL COST	EST. ANNUAL INCOME	YIELD
SCHLUMBERGER INV NT 2.65% 6/26/30	1.27%	75,000	103.06	\$77,293	99.61	\$74,706	\$1,988	2.25%
CUMMINS INC NT 1.5% 9/1/30	1.02%	65,000	95.50	\$62,076	97.90	\$63,633	\$975	2.06%
PFIZER INC NT 1.75% 8/18/31	1.04%	65,000	97.57	\$63,417	99.66	\$64,781	\$1,138	2.02%
BOEING CO NT 8.625% 11/15/31	0.87%	36,000	146.99	\$52,917	146.71	\$52,815	\$3,105	3.16%
TRUSTEES OF UN CLG NT 4.877% 7/7/35	1.19%	60,000	120.63	\$72,377	100.00	\$60,000	\$2,926	3.03%
NORTHERN STATES PWR NT 6.25% 6/1/36	1.05%	45,000	141.96	\$63,883	139.54	\$62,791	\$2,813	2.75%
TYCO ELECTRONICS NT 7.125% 10/1/37	0.62%	25,000	150.79	\$37,697	136.19	\$34,048	\$1,781	3.36%
JPMORGAN CHASE NT 5.5% 10/15/40	1.23%	55,000	136.66	\$75,160	107.34	\$59,034	\$3,025	2.97%
VERIZON COMMN NT 2.65% 11/20/40	0.77%	50,000	93.75	\$46,877	99.91	\$49,954	\$1,325	3.08%
APPLIED MATERIALS NT 5.85% 6/15/41	0.96%	40,000	145.95	\$58,378	120.39	\$48,156	\$2,340	2.80%
BURLINGTON NORTH NT 4.95% 9/15/41	0.85%	40,000	129.39	\$51,755	104.25	\$41,701	\$1,980	2.95%
CANADIAN PAC RR NT 5.75% 1/15/42	0.55%	25,000	133.56	\$33,391	124.17	\$31,042	\$1,438	3.44%
ANHEUSER-BUSCH NT 4% 1/17/43	0.99%	55,000	110.02	\$60,513	89.98	\$49,488	\$2,200	3.34%
MIDAMERICAN ENERGY NT 4.8% 9/15/43	1.05%	50,000	128.07	\$64,033	99.53	\$49,764	\$2,400	3.01%
SOUTHERN CAL EDISON NT 4.65% 10/1/43	0.95%	50,000	115.16	\$57,580	99.51	\$49,756	\$2,325	3.63%
AMERICAN INTL GRP NT 4.5% 7/16/44	0.60%	30,000	122.14	\$36,643	99.40	\$29,819	\$1,350	3.12%
PROGRESSIVE CORP NT 3.7% 1/26/45	1.02%	55,000	113.25	\$62,289	98.05	\$53,926	\$2,035	2.91%
NORFOLK SOUTHERN NT 4.45% 6/15/45	0.70%	35,000	122.23	\$42,781	107.85	\$37,747	\$1,558	3.10%
WW GRAINGER NT 4.6% 6/15/45	0.84%	40,000	128.16	\$51,265	109.64	\$43,855	\$1,840	2.92%
TRAVELERS COS INC NT 4.3% 8/25/45	1.12%	55,000	124.08	\$68,246	99.22	\$54,569	\$2,365	2.88%
NW NATURAL GAS NT 3.869% 6/15/49	0.73%	40,000	111.10	\$44,440	100.00	\$40,000	\$1,548	3.25%
ENTERGY LA NT 2.9% 3/15/51	1.20%	75,000	97.38	\$73,035	104.41	\$78,310	\$2,175	3.04%
GATX CORP NT 3.1% 6/1/51	0.54%	35,000	94.26	\$32,990	99.94	\$34,980	\$1,085	3.41%
BELL CANADA NT 3.2% 2/15/52	0.58%	35,000	100.15	\$35,052	99.96	\$34,986	\$1,120	3.19%
CON EDISON NT 3% 12/1/60	0.76%	50,000	92.91	\$46,455	99.40	\$49,699	\$1,500	3.33%
<b>Total for Credit</b>	<b>62.42%</b>			<b>\$3,803,176</b>		<b>\$3,603,084</b>	<b>\$122,613</b>	<b>1.82%</b>
<b>Mortgage</b>								
FNMA POOL # AU6690 2.5% 9/1/28	0.25%	14,625	104.92	\$15,344	102.25	\$14,954	\$366	1.74%

Bond Yield is Market Yield

Communication: Quarterly Commerce Bank Report 9-30-21 (Commerce Bank - Report Only)

# PORTFOLIO HOLDINGS

CITY OF CREVE COEUR EMP RETIREMENT | 910048016 | as of 09/30/2021

TICKER	% OF PORTFOLIO	QUANTITY	PRICE	MARKET VALUE	UNIT COST	TOTAL COST	EST. ANNUAL INCOME	YIELD
SLST 2018-2 CL A1 3.5% 11/25/28	0.74%	43,012	105.50	\$45,378	98.66	\$42,438	\$1,505	2.65%
FNMA POOL # AL6326 2.5% 8/1/28	0.19%	11,401	102.87	\$11,728	102.00	\$11,629	\$285	2.05%
IMM 2004-10 CL 4A1 V/R 3/25/35	0.15%	9,067	99.03	\$8,979	98.00	\$8,886	\$215	0.99%
IMM 2005-6 CL 2A2 V/R 10/25/35	0.02%	1,161	100.68	\$1,169	95.50	\$1,109	\$20	1.25%
FNMA POOL # CA1792 4.5% 3/1/38	0.33%	18,368	109.19	\$20,055	103.63	\$19,033	\$827	3.75%
FNR 2012-114 CL ND 2% 10/25/41	0.23%	13,948	101.83	\$14,203	95.00	\$13,250	\$279	1.89%
FNR 2011-111 CL ME 4% 11/25/41	0.43%	24,333	106.71	\$25,967	102.41	\$24,919	\$973	3.53%
FHLMC POOL # Q16613 3% 3/1/43	0.68%	37,855	108.74	\$41,163	101.36	\$38,370	\$1,136	2.47%
FHR 4272 CL DG 3% 4/15/43	0.11%	6,299	102.43	\$6,452	101.75	\$6,409	\$189	2.85%
FNR 2015-2 CL PA 2.25% 3/25/44	0.27%	16,141	102.88	\$16,606	101.23	\$16,340	\$363	2.09%
FHR 4776 CL DW 4% 9/15/44	0.05%	2,916	99.95	\$2,914	101.50	\$2,959	\$117	4.00%
FNMA POOL #AS4374 3.5% 2/1/45	0.48%	27,035	109.22	\$29,527	103.05	\$27,859	\$946	2.95%
FHR 5020 CL KW 2% 9/25/45	1.35%	80,000	103.12	\$82,493	103.62	\$82,894	\$1,600	1.84%
FHR 2021-5140 CL H 2% 8/25/46	1.08%	64,746	101.73	\$65,867	102.44	\$66,324	\$1,295	1.91%
FNMA POOL #MA3351 3% 4/1/48	0.28%	16,694	102.97	\$17,189	100.47	\$16,772	\$501	2.84%
FNMA POOL # BK9890 5% 8/1/48	0.40%	21,874	112.11	\$24,523	105.63	\$23,104	\$1,094	4.24%
FNR 2019-68 CL KP 2.5% 11/25/49	1.21%	70,363	104.56	\$73,572	99.31	\$69,880	\$1,759	2.28%
FN UMBS POOL #FM7427 2% 5/1/51	0.82%	49,490	100.97	\$49,968	102.53	\$50,743	\$990	1.96%
FNR 2021-51 CL JB 2% 8/25/51	1.07%	64,438	101.31	\$65,279	101.95	\$65,696	\$1,289	1.94%
FNR 2021-60 CL ND 1.5% 9/25/51	1.06%	64,835	99.62	\$64,586	100.39	\$65,086	\$973	1.52%
<b>Total for Mortgage</b>	<b>11.21%</b>			<b>\$682,962</b>		<b>\$668,654</b>	<b>\$16,720</b>	<b>2.27%</b>
<b>Tax Exempt Revenue</b>								
RIVER CITY INC KY 2.75% 12/1/33	1.19%	70,000	103.91	\$72,736	84.73	\$59,312	\$1,925	2.38%
<b>Total for Tax Exempt Revenue</b>	<b>1.19%</b>			<b>\$72,736</b>		<b>\$59,312</b>	<b>\$1,925</b>	<b>2.38%</b>
<b>Taxable Muni Bonds</b>								
BRUNSWICK CNTY NC TXBL 2.1% 4/1/23	1.35%	80,000	102.65	\$82,118	100.00	\$80,000	\$1,680	0.33%
NEW YORK CITY NY TXBL 3.467% 11/1/23	1.31%	75,000	106.04	\$79,531	100.00	\$75,000	\$2,600	0.55%
PALM BEACH CO FL TXBL 4% 11/1/25	0.97%	55,000	107.23	\$58,974	98.89	\$54,390	\$2,200	2.14%

Bond Yield is Market Yield

Communication: Quarterly Commerce Bank Report 9-30-21 (Commerce Bank - Report Only)

# PORTFOLIO HOLDINGS

CITY OF CREVE COEUR EMP RETIREMENT | 910048016 | as of 09/30/2021

TICKER	% OF PORTFOLIO	QUANTITY	PRICE	MARKET VALUE	UNIT COST	TOTAL COST	EST. ANNUAL INCOME	YIELD
ANCHORAGE AK TXBL COPS 3.058% 7/1/24	1.31%	75,000	106.11	\$79,583	100.00	\$75,000	\$2,294	0.81%
KILLEEN TX SWR TXBL 0.86% 8/15/24	1.15%	70,000	100.34	\$70,235	100.00	\$70,000	\$602	0.74%
CT ST TXBL GO 3.693% 9/15/24	1.16%	65,000	108.47	\$70,503	100.00	\$65,000	\$2,400	0.79%
MONTGOMERY VA TXBL 2.342% 6/1/25	1.29%	75,000	105.16	\$78,871	100.00	\$75,000	\$1,757	0.91%
NY ST TXBL 2.406% 1/1/26	1.72%	100,000	104.80	\$104,801	100.00	\$100,000	\$2,406	1.24%
IN ST TXBL UNIV 3.3% 2/1/26	1.29%	75,000	104.43	\$78,323	100.00	\$75,000	\$2,475	2.22%
WINNEBAGO IL TXBL GO 4.15% 12/30/27	1.36%	75,000	110.83	\$83,123	100.00	\$75,000	\$2,925	2.28%
MINNEAPOLIS MN TXBL GO 4.379% 3/1/34	0.87%	50,000	106.39	\$53,194	100.00	\$50,000	\$2,190	3.73%
ME ST HSG TXBL 2.674% 11/15/35	1.25%	75,000	101.18	\$75,882	100.00	\$75,000	\$2,006	2.57%
<b>Total for Taxable Muni Bonds</b>	<b>15.02%</b>			<b>\$915,138</b>		<b>\$869,390</b>	<b>\$25,534</b>	<b>1.45%</b>
<b>Treasury</b>								
US TREASURY BOND 3.125% 8/15/44	1.18%	60,000	119.47	\$71,681	112.42	\$67,451	\$1,875	2.05%
<b>Total for Treasury</b>	<b>1.18%</b>			<b>\$71,681</b>		<b>\$67,451</b>	<b>\$1,875</b>	<b>2.05%</b>
<b>TOTAL FOR FIXED INCOME INVESTMENTS</b>	<b>95.30%</b>			<b>\$5,805,976</b>		<b>\$5,527,890</b>	<b>\$170,356</b>	<b>1.77%</b>
<b>Grand Total</b>	<b>100.00%</b>			<b>\$6,092,553</b>		<b>\$5,814,466</b>	<b>\$170,431</b>	<b>1.69%</b>

Communication: Quarterly Commerce Bank Report 9-30-21 (Commerce Bank - Report Only)



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# RETIREMENT PLAN FOR EMPLOYEES OF THE CITY OF CREVE COEUR

## Actuarial Valuation Report July 1, 2021

### Prepared by

**Michael J. Zwiener, FSA**  
Consulting Actuary

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Communication: Actuarial Valuation (Milliman Reports)

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## Introduction and Purpose

In this report, we present the results of the July 1, 2021 actuarial valuation for the Retirement Plan for Employees of the City of Creve Coeur.

### Purposes of the Valuation

The actuarial valuation of the Plan is intended to accomplish several purposes:

- (a) In general, the determination of current levels of employer contributions which, together with prior funding, will accumulate monies sufficient to meet benefit payments when due under the terms of the Plan;
- (b) review plan experience for the year ended on the valuation date to ascertain whether the assumptions and methods employed for valuation purposes are reflective of actual events and remain appropriate for prospective application; and
- (c) assessment of the relative funded position of the plan on an ongoing basis, i.e., through a comparison of plan assets and projected plan liabilities.

## Actuarial Certification

As requested, we have performed an actuarial valuation of the Retirement Plan for Employees of the City of Creve Coeur as of July 1, 2021 for the Plan Year ending June 30, 2022. Our findings are set forth in this actuary's report. This report reflects the benefit provisions in effect on July 1, 2021.

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the the Plan's Administrative Staff. This information includes, but is not limited to, statutory plan provisions, employee data, and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different and our calculations may need to be revised.

The valuation results were developed using models intended for valuations that use standard actuarial techniques. In addition, Milliman has developed certain models to develop the expected long term rate of return on assets used in this analysis. We have reviewed the models, including their inputs, calculations, and outputs for consistency, reasonableness, and appropriateness to the intended purpose and in compliance with generally accepted actuarial practice and relevant actuarial standards of practice. The models, including all input, calculations, and output may not be appropriate for any other purpose.

All costs, liabilities, rates of interest, and other factors for the Plan have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the Plan and reasonable expectations); and which, in combination, offer our best estimate of anticipated experience affecting the Plan. Further, in our opinion, each actuarial assumption used is reasonably related to the experience of the Plan and to reasonable expectations which, in combination, represent our best estimate of anticipated experience under the Plan.

This valuation report is only an estimate of the Plan's financial condition as of a single date. It can neither predict the Plan's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of Plan benefits, only the timing of Plan contributions. While the valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct. Determining results using alternative assumptions is outside the scope of our engagement.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements. The City has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in this report.

## Actuarial Certification

Actuarial computations presented in this report are for purposes of determining the recommended funding amounts for the Fund. The calculations in the enclosed report have been made on a basis consistent with our understanding of the Fund's funding requirements and goals. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report.

Milliman's work is prepared solely for the internal business use of the City of Creve Coeur and its employees (for their use in administering the Plan). To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exceptions:

- (a) The System may provide a copy of Milliman's work, in its entirety, to the System's professional advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit the System.
- (b) The System may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law.

No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their specific needs.

The consultants who worked on this assignment are pension actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the City. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and has been prepared in accordance with generally recognized accepted actuarial principles and practices. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

We respectfully submit the following report, and we look forward to discussing it with you.



Michael J. Zwiener, FSA  
Consulting Actuary



William Winningham, EA, MAAA  
Consulting Actuary

## Discussion of Valuation Results

### Actuarially Determined Contribution

The results of this valuation are used to actuarially determine contribution amounts to the Fund for the July 1, 2021 - June 30, 2022 fiscal year. A comparison of actuarially determined contribution amounts for the current and immediately preceding valuation are summarized below:

	Actuarial Valuation as of	
	July 1, 2020	July 1, 2021
Actuarially Determined Employer Contribution*	\$1,230,482	\$977,511
Actuarially Determined Employer Contribution**	\$1,313,540	\$1,036,162
Actual Employer Contribution	\$1,271,253	N/A

\* Assuming payment as of first day of plan year

\*\* Assuming payment as of last day of plan year

### Plan Assets

The market value of plan assets increased from \$26,373,489 at July 1, 2020 to \$33,098,397 at June 30, 2021. A balance sheet and statement of income and disbursements are presented on pages 7 and 8. Investment income (net of expense) was \$7,359,276 for a return of 28.2%. During the prior year, investment return was 2.3%. Contributions to the fund were \$1,361,091 and benefit payments totaled \$1,929,682.

Valuation assets are defined to be actuarial value using an asset smoothing method. On an actuarial value basis, fund assets are \$29,800,918 on July 1, 2021, compared to \$27,258,531 on July 1, 2020. Net investment income was \$3,176,755 for return of 11.8%. The development of the actuarial value of assets is shown on page 9.

### Actuarial Assumptions, Methods and Plan Provisions

The amortization period for the pre-2015 unfunded actuarial liability was extended an additional 4 years. The interest rate was changed from 6.75% to 6.00%. The mortality table was changed from RP-2000 Combined Healthy Table with a 70% Blue Collar adjustment using projection scale BB to Pub-2010 General Amount-Weighted Mortality table using improvement scale updates published annually (currently MP-2020). The employee contribution rate was increased from 3.00% to 4.00% effective July 1, 2019.

All other actuarial assumptions and methods remained the same as the prior valuation. Descriptions of all actuarial assumptions, methods, and Plan provisions can be found on pages 13-16.

### Plan Population

The number of active participants decreased from 35 on July 1, 2020 to 31 on July 1, 2021. The number of retirees/beneficiaries/disableds increased from 82 to 86, and the number of deferred vested participants decreased from 20 to 18.

## Discussion of Valuation Results

### Plan Experience

Prior to assumption changes, plan experience resulted in an overall experience gain for the plan year ending June 30, 2021. This is primarily due to a gain on Actuarial Value of Assets.

### GASB 67/68

Results under GASB 67 and 68 are presented in a separate report.

### Funded Status - Accrued Benefit Basis

Another measure of a plan's funded status is the relationship of the market value of plan assets to the present value of benefits accrued to date. The amounts for the current and prior year are shown in the following table:

	Valuation Date <u>July 1, 2020</u>	Valuation Date <u>July 1, 2021</u>
a) Present Value of Vested Accrued Benefits	\$30,278,709	\$33,417,805
b) Present Value of All Accrued Benefits	\$30,657,028	\$33,744,681
c) Market Value of Assets	\$26,373,489	\$33,098,397
d) Ratio: (c)/(a)	87.1%	99.0%
e) Ratio: (c)/(b)	86.0%	98.1%

The interest discount utilized for this purpose was 6.75% in 2020 and 6.00% in 2021. The discount rate that is required to value plan liabilities on a settlement basis is typically lower than the "ongoing basis" discount rate. Therefore, these amounts should not be used to assess the plan's funded status on a settlement basis.

### Funded Status - Actuarial Accrued Liability Basis

The most common measure of a public sector plan's funded status is dividing the Plan Assets by the Actuarial Accrued Liability. As of the valuation date, this ratio is 84.7% using Actuarial Value of Assets and 94.1% using the Market Value of Assets.

Communication: Actuarial Valuation (Milliman Reports)

## Summary of Valuation Results

	<u>Valuation Date</u> <u>July 1, 2020</u>	<u>Valuation Date</u> <u>July 1, 2021</u>
<b>Participant Data</b>		
Number of Participants		
Active participants	35	31
Terminated vested participants	20	18
Retirees and beneficiaries	82	86
Total	<u>137</u>	<u>135</u>
Covered Payroll	2,532,924	2,510,196
<b>Assets</b>		
Market Value of Assets	26,373,489	33,098,397
Investment Yield	2.3%	28.2%
Actuarial Value of Assets	27,258,531	29,800,918
Investment Yield	5.0%	11.8%
<b>Actuarial Present Values</b>		
Accrued Liability	32,071,575	35,171,396
- Actuarial Value of Assets	<u>27,258,531</u>	<u>29,800,918</u>
Unfunded Accrued Liability	<u>4,813,044</u>	<u>5,370,478</u>
Funded Ratio (Market Value Basis)	82.2%	94.1%
Funded Ratio (Actuarial Value Basis)	85.0%	84.7%
<b>Costs and Contributions</b>		
Normal Cost	267,260	324,322
% of Covered Payroll	10.6%	12.9%
Actuarially Determined Contribution (ADC)	1,230,482	977,511
% of Covered Payroll*	48.6%	38.9%
<b>Funded Status of Accumulated Benefits</b>		
Present Value of Accrued Benefits	30,657,028	33,744,681
Funded Ratio (Market Value Basis)	86.0%	98.1%
Funded Ratio (Actuarial Value Basis)	88.9%	88.3%

\*Since the Plan has been closed to new members since 2006, Active Participant headcount as well as Covered Payroll have steadily declined (in line with expectations). Coupled with the aggressive funding policy (14-year amortization of the pre-2015 UAL), the ADC when expressed as a % of payroll is sharply increased. In dollar terms, the ADC has remained relatively flat and is expected to remain so through 2028. At that time, the pre-2015 UAL will be fully amortized and the ADC will decrease significantly.

## Statement of Assets as of June 30, 2021

<b>Assets</b>	<u>Market Value</u>
Cash and cash equivalents	\$264,515
Receiveable investment income	\$34,451
Fixed income	\$9,029,376
Stocks	\$23,770,055
Real estate	\$0
Total Assets	<u>33,098,397</u>
<b>Liabilities</b>	
Payable to brokers for unsettled trades	0
Total Liabilities	<u>0</u>
<b>Net Assets</b>	<u><u>\$33,098,397</u></u>

Communication: Actuarial Valuation (Milliman Reports)

## Statement of Income and Disbursements

<b>Market Value of Assets as of July 1, 2020</b>	<b>\$26,373,489</b>
 <b>Income</b>	
Employer Contributions	1,271,253
Employee Contributions	89,838
Interest and Dividends	741,075
Net Appreciation/(Depreciation)	6,655,773
Investment Expenses	(37,572)
Total Income	8,720,367
 <b>Disbursements</b>	
Employee Benefit Distributions	1,929,682
Administrative Expenses	65,777
Total Expenses	1,995,459
Net Increase (Decrease)	6,724,908
<b>Market Value of Assets as of June 30, 2021</b>	<b>\$33,098,397</b>
<b>Net Rate of Return</b>	<b>28.2%</b>

Communication: Actuarial Valuation (Milliman Reports)

## Development of Actuarial Value of Assets

<b>1. Actuarial Value Beginning of Year</b>	\$27,258,531
<b>2. Market Value End of Year</b>	33,098,397
<b>3. Market Value Beginning of Year</b>	26,373,489
<b>4. Non-Investment Cash Flows <sup>(1)</sup></b>	(568,591)
<b>5. Investment Income</b>	
a. Market Total: (2) - (3) - (4)	7,293,499
b. Assumed Rate of Return	6.75%
c. Expected Investment Return <sup>(2)</sup>	1,761,021
d. Gain/(Loss): (5a) - (5c)	5,532,478
<b>6. Phased-In Recognition of Investment Income</b>	
a. Current Year: (1/3) x (5d)	1,844,159
b. (1/3) of Gain/(Loss) during plan year ending June 30, 2020	(390,836)
c. (1/3) of Gain/(Loss) during plan year ending June 30, 2019	(103,366)
d. Phased-In Investment Gain to be Recognized in Current Year: (6a) + (6b) + (6c)	1,349,957
<b>7. Actuarial Value End of Year:</b> <b>(1) + (4) + (5c) + (6d)</b>	\$29,800,918
<b>8. Excess of Market Value over Actuarial Value:</b> <b>(2) - (7)</b>	3,297,479
<b>9. Approximate Rate of Return on Actuarial Value</b>	11.8%
<b>10. Ratio of Actuarial Value of Assets to Market Value of Assets:</b> <b>(7) / (2)</b>	90.0%

<sup>(1)</sup> Contributions less benefit payments

<sup>(2)</sup> Assumed Rate times (3) + (4) times Assumed Rate/2

## Statement of Accrued Benefits

	July 1, 2020	July 1, 2021
<b>1. Accumulated Plan Benefits</b>		
a. Actuarial Present Value of Vested Benefits		
i. Participants currently receiving payments	19,265,030	22,962,084
ii. Active Participants	9,426,772	8,772,561
iii. Deferred Vested Participants	1,586,907	1,683,160
iv. Total Vested Benefits	30,278,709	33,417,805
b. Actuarial Present Value of Non-Vested Benefits	378,319	326,876
c. Total Actuarial Present Value of Accumulated Plan Benefits: (aiv) + (b)	30,657,028	33,744,681
<b>2. Net Assets (Market Value) available for benefits</b>	26,373,489	33,098,397
<b>3. Funded Ratio</b>		
a. Vested Benefits: (2) / (1aiv)	87.1%	99.0%
b. Accumulated Benefits: (2) / (1c)	86.0%	98.1%
<b>4. Net Assets (Actuarial Value) available for benefits</b>	27,258,531	29,800,918
<b>5. Funded Ratio</b>		
a. Vested Benefits: (4) / (1aiv)	90.0%	89.2%
b. Accumulated Benefits: (4) / (1c)	88.9%	88.3%

Communication: Actuarial Valuation (Milliman Reports)

## Development of Actuarially Determined Contribution

July 1, 2021

**1. Accrued Liability**

a. Active Participants	\$10,526,152
b. Terminated Vested Participants	1,683,160
c. Retired Participants	22,962,084
d. Total	35,171,396

**2. Actuarial Value of Assets**

29,800,918

**3. Funded Ratio: (2) / (1d)**

84.7%

**4. Covered Payroll**

2,510,196

**5. Unfunded Actuarial Liability (UAL)**

5,370,478

- a. Outstanding UAL from July 1, 2015
- b. Outstanding UAL after July 1, 2015

3,350,156  
2,020,322

**6. Normal Cost:**

- a. Entry Age Normal Cost
- b. Expected Employee Contributions
  - i. As a percentage of Covered Payroll: (6b) / (3)
- c. Employer Normal Cost without Expenses: (6a) - (6b)
  - ii. As a percentage of Covered Payroll: (6c) / (3)
- d. Assumed Administrative Expenses
- e. Employer Normal Cost including Expenses: (6c) + (6d)

324,322  
100,408  
4.0%  
223,914  
8.9%  
48,396  
272,310

**7. 14-Year Amortization of UAL from July 1, 2015**

508,958

**8. 15-Year Amortization of Additional UAL after July 1, 2015**

196,243

**9. Employer Cost**

- a. Actuarially Determined Contribution: (6e) + (7) + (8)
- b. Payable as of the end of the plan year: (9a) x 1.06
- c. As a percentage of Covered Payroll: (9a) / (4)

977,511  
1,036,162  
38.9%

Communication: Actuarial Valuation (Milliman Reports)

## Historical Investment Returns on Market Value Basis

Year Ended June 30	Rate of Return				
	Annual	Cumulative	Last 5 Years	Last 10 Years	Last 20 Years
1995	8.09%	8.09%	N/A	N/A	N/A
1996	14.35%	11.18%	N/A	N/A	N/A
1997	18.08%	13.43%	N/A	N/A	N/A
1998	17.31%	14.39%	N/A	N/A	N/A
1999	8.46%	13.18%	13.18%	N/A	N/A
2000	9.27%	12.52%	13.42%	N/A	N/A
2001	-5.76%	9.70%	9.12%	N/A	N/A
2002	-10.64%	6.93%	3.20%	N/A	N/A
2003	1.59%	6.32%	0.28%	N/A	N/A
2004	13.39%	7.01%	1.17%	7.01%	N/A
2005	6.21%	6.93%	0.60%	6.82%	N/A
2006	8.62%	7.07%	3.50%	6.27%	N/A
2007	16.67%	7.78%	9.17%	6.14%	N/A
2008	-8.15%	6.56%	6.99%	3.58%	N/A
2009	-18.25%	4.69%	0.21%	0.69%	N/A
2010	12.16%	5.14%	1.31%	0.95%	N/A
2011	19.62%	5.94%	3.28%	3.39%	N/A
2012	0.23%	5.62%	0.19%	4.58%	N/A
2013	12.87%	5.99%	4.41%	5.69%	N/A
2014	17.86%	6.55%	12.34%	6.10%	6.55%
2015	1.99%	6.33%	10.22%	5.67%	6.24%
2016	1.15%	6.09%	6.58%	4.92%	5.59%
2017	11.43%	6.32%	8.87%	4.44%	5.29%
2018	7.69%	6.37%	7.85%	6.12%	4.84%
2019	5.50%	6.34%	5.48%	8.86%	4.69%
2020	2.30%	6.18%	5.55%	7.86%	4.35%
2021	28.20%	6.92%	10.67%	8.61%	5.97%

Communication: Actuarial Valuation (Milliman Reports)

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## Actuarial Methods

Following are brief descriptions of the actuarial cost and asset valuation methods used in the valuation.

**Actuarial Cost Method**    Entry Age Normal

The Entry Age Normal Cost Method on an individual basis is used. Normal costs are computed as a level percentage of pay.

The Unfunded Entry Age Accrued Liability as of July 1, 2015 is amortized over a 10 year period. Each year, the amortization period will decrease by 1 until it reaches 0 years as of July 1, 2025. This period was extended as of July 1, 2021 for an additional 4 years. The amortization period will end as of July 1, 2029. Any subsequent Unfunded Entry Age Accrued Liability is amortized over an open 15 year period.

**Asset Valuation Method**    A three-year smoothed value, with difference between actual investment return and expected investment return recognized in equal installments over a three-year period.

## Actuarial Assumptions

Following are the primary actuarial assumptions used in performing the valuation.

**Interest Rates** 6.00% per annum (effective July 1, 2021), net of investment expenses

**Annual Pay Increases** 4.00% per year

**Mortality** Pub-2010 General Amount-Weighted Mortality tables for Employees, Healthy Retirees, Disabled Retirees and Contingent Survivors, male and female rates, with generational projection from 2010 using Scale MP-2020 (improvement scale updates published annually) (effective July 1, 2021)

**Turnover** Rates are as follows:

Age	Percentage
25	10%
35	8%
45	4%
55	0%

**Rate of Disability** None assumed.

**Retirement** Non-Uniformed: Participants are assumed 60% retirement at their Unreduced Early Retirement Age, if it is prior to their Normal Retirement Age. Retirement rates of 5% are assumed between their Unreduced Early Retirement Age and age 65, at which a retirement rate of 100% is assumed.

Uniformed: Retirement rates are as follows:

Age	Percentage
55	60%
56 - 61	5%
62	100%

**Administrative Expenses** Average of last two years of actual administrative expenses (effective July 1, 2019)

**Marriage** For retired members, actual marital status and spouse birth date is used. For active members, 100% are assumed married with males assumed three years older than their spouses.

**Form of Payment** It is assumed that all employees will elect a life annuity with 120 months guaranteed.

## Summary of Plan Provisions

A summary of the current primary provisions of the Plan are described below. A complete description of the provisions can be found in the local statutes.

<b>Effective Date</b>	Last restated effective July 1, 2013. Reflects subsequent Ordinance 5656 and Retirement Board resolution dated September 25, 2019.
<b>Eligibility</b>	Full-time employees enter the Plan on the July 1 on or immediately following their completion of two years of continuous employment and attainment of age 21. No Employees hired after May 23, 2006 may enter the Plan.
<b>Employee Contributions</b>	Participants are required to contribute 4% of salary (effective July 1, 2019). Contributions accumulate at an interest rate of 5%.
<b>Credited Service</b>	Elapsed time, in years and completed months, from date of hire.
<b>Final Average Compensation</b>	Average of the high 60 consecutive months in the last 120 months.
<b>Normal Retirement Age</b>	Age 55 for a uniformed participant and age 65 for a non-uniformed participant.
<b>Normal Retirement Benefit</b>	A benefit equal to Final Average Compensation times 1.7% times Credited Service not to exceed 30 years. If a participant elected not to participate in the City's defined contribution plan, then the multiplier would be 2.0%.
<b>Normal Form of Payment</b>	The benefit is payable for 120 months guaranteed and for the member's lifetime, thereafter.
<b>Unreduced Early Retirement Eligibility</b>	The participant will be eligible to retire with an unreduced benefit prior to their Normal Retirement Age when the sum of their age and Credited Service equals 85.
<b>Early Retirement Age</b>	Age 50 with at least 20 years of Credited Service.
<b>Early Retirement Benefit</b>	The actuarial equivalent of a benefit calculated in the same manner as the Normal Retirement Benefit with Final Average Compensation and Credited Service determined as of the Early Retirement Date.
<b>Late Retirement Benefit</b>	If a member remains employed after his Normal Retirement Date, he will receive a monthly benefit equal to the benefit computed using service and pay as of his late retirement date. Benefits commence on the first day of the month following actual retirement.

## Summary of Plan Provisions

### Pre-Retirement Death Benefit

The Surviving Spouse of a Participant who is actively employed and has satisfied Early or Normal Retirement eligibility requirements is entitled to a Death Benefit determined as if the Participant had retired on his date of death, selected a Joint & 2/3 Survivor Annuity and died the next day.

The Surviving Spouse of any other actively employed vested participant is entitled to a Death Benefit determined as follows:

- i) assume the Participant separated from service on date of death
- ii) survived to the earliest possible retirement eligibility date
- iii) retired with a Joint and 2/3 Survivor Annuity, and
- iv) dies the next day

### Vested Termination

Members who terminate employment are eligible for a monthly benefit calculated in the same manner as the Normal Retirement Benefit, multiplied by the applicable vesting percentage:

Sum of Attained Age & Years of Service	Vesting Percentage
50	50%
51	60%
52	70%
53	80%
54	90%
55 and after	100%

However, if a participant has at least 8 years of Credited Service, then they are fully vested.

### Refund of Contributions

If a participant terminates employment without a vested benefit, then the participant will receive a refund of contributions with interest. If the sum of benefit payments received by a retiree or beneficiary is less than the sum of contributions with interest, then the difference may be paid to their beneficiary as an additional death benefit.

### Optional Forms of Payment

Life Annuity	Joint & 50% Survivor Annuity with Pop-Up
Joint & 50% Survivor Annuity	Joint & (2/3)% Survivor Annuity with Pop-Up
Joint & (2/3)% Survivor Annuity	Joint & 100% Survivor Annuity with Pop-Up
Joint & 100% Survivor Annuity	

Communication: Actuarial Valuation (Milliman Reports)

### Distribution of Active Members by Age and by Years of Service Number of Participants by Age-Service Groups

Attained Age	Years of Service																					
	Under 1		1 to 4		5 to 9		10 to 14		15 to 19		20 to 24		25 to 29		30 to 34		35 to 39		40 and up		Total	
	No.	Avg. Comp	No.	Avg. Comp	No.	Avg. Comp	No.	Avg. Comp	No.	Avg. Comp	No.	Avg. Comp	No.	Avg. Comp	No.	Avg. Comp	No.	Avg. Comp	No.	Avg. Comp	No.	Avg. Comp
Under 25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 to 29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30 to 34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35 to 39	0	0	0	0	0	0	0	0	1	N/A	0	0	0	0	0	0	0	0	0	0	1	N/A
40 to 44	0	0	0	0	0	0	0	0	2	N/A	0	0	0	0	0	0	0	0	0	0	2	N/A
45 to 49	0	0	0	0	0	0	0	0	1	N/A	3	N/A	0	0	0	0	0	0	0	0	4	N/A
50 to 54	0	0	0	0	0	0	0	0	3	N/A	2	N/A	4	N/A	1	N/A	0	0	0	0	10	88,266
55 to 59	0	0	0	0	0	0	0	0	2	N/A	3	N/A	0	0	2	N/A	0	0	0	0	7	80,954
60 to 64	0	0	0	0	0	0	0	0	1	N/A	2	N/A	1	N/A	1	N/A	1	N/A	0	0	6	69,868
65 to 69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N/A
70 and up	0	0	0	0	0	0	0	0	1	N/A	0	0	0	0	0	0	0	0	0	0	1	N/A
<b>Total</b>	0	0	0	0	0	0	0	0	11	73,212	10	96,593	5	81,615	4	N/A	1	N/A	0	0	31	83,333

Average Age 54.2

Average Service 22.8

Communication: Actuarial Valuation (Milliman Reports)

## Inactive Participants - Summary by Age

### Deferred Vested Participants

Age Group	No. of	Total Monthly Benefit Amount	Average Monthly Benefit Amount
Less than 30	0	\$0	\$0
30 - 34	0	0	0
35 - 39	0	0	0
40 - 44	3	2,410	803
45 - 49	4	2,567	642
50 - 54	2	2,660	1,330
55 - 59	4	4,320	1,080
60 and over	5	4,804	961
Total	18	16,761	931

### Retired Participants

Age Group	No. of	Total Monthly Benefit Amount	Average Monthly Benefit Amount
Less than 55	0	\$0	\$0
55 - 59	10	25,905	2,591
60 - 64	14	33,921	2,423
65 - 70	19	50,151	2,640
70 - 75	19	30,567	1,609
75 - 80	10	12,669	1,267
80 and over	14	16,650	1,189
Total	86	169,863	1,975

Communication: Actuarial Valuation (Milliman Reports)

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## Summary of Changes in Member Data

	Active Participants	Retired Participants	Terminated Vested Participants	Total
<b>Count as of July 1, 2020</b>	35	82	20	137
New Entrants	0	0	0	0
Rehired	0	0	0	0
Retired	(4)	6	(2)	0
Lump Sum Payouts	0	0	0	0
Died with Beneficiary	0	(1)	0	(1)
New Alternate Payees	0	0	0	0
New Beneficiaries	0	1	0	1
Died without Beneficiary	0	(2)	0	(2)
Certain Period Expired	0	0	0	0
Terminated with Vesting	0	0	0	0
Terminated without Vesting	0	0	0	0
Data Corrections	0	0	0	0
<b>Total Changes</b>	<b>(4)</b>	<b>4</b>	<b>(2)</b>	<b>(2)</b>
<b>Count as of July 1, 2021</b>	<b>31</b>	<b>86</b>	<b>18</b>	<b>135</b>

Communication: Actuarial Valuation (Milliman Reports)

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## Actuarial Standard of Practice 51 (ASOP 51)

The purpose of this section is to identify, assess, and provide illustrations of risks that are significant to the Plan, and in some cases to the Plan's participants.

The results of the actuarial valuation are based on one set of reasonable assumptions. However, it is almost certain that future experience will not exactly match the assumptions. As an example, investments may perform better or worse than assumed in any single year and over any longer time horizon. It is therefore important to consider the potential impacts of these potential differences when making decisions that may affect the future financial health of the Plan, or of the Plan's participants.

In addition, as plans mature they accumulate larger pools of assets and liabilities. This increases the potential risk to plan funding and the finances of those who are responsible for plan funding. As an example, it is more difficult for a plan sponsor to deal with the effects of a 10% investment loss on a plan with \$1 Billion in assets and liabilities than if the same plan sponsor is responsible for a 10% investment loss on a plan with \$1 Million in assets and liabilities. Since pension plans make long-term promises and rely on long-term funding, it is important to consider how mature the plan is today, and how mature it may become in the future.

Actuarial Standard of Practice No. 51 (ASOP 51) addresses these issues by providing actuaries with guidance for assessing and disclosing the risk associated with measuring pension liabilities and the determination of pension plan contributions. Specifically, it directs the actuary to:

- Identify risks that may be significant to the plan.
- Assess the risks identified as significant to the plan.
- Disclose plan maturity measures and historical information that are significant to understanding the plan's risks.

ASOP 51 states that if in the actuary's professional judgment, a more detailed assessment would be significantly beneficial in helping the individuals responsible for the plan to understand the risks identified by the actuary, then the actuary should recommend that such an assessment be performed.

This appendix uses the framework of ASOP 51 to communicate important information about: significant risks to the Plan, the Plan's maturity, and relevant historical Plan data.

## Actuarial Standard of Practice 51 (ASOP 51)

### Maturity Risk

Definition: This is the potential for total plan liabilities to become more heavily weighted toward inactive liabilities over time.

Identification: The Plan is subject to maturity risk because as Plan assets and liabilities continue to grow, the impact of any gains or losses on the assets or liabilities also becomes larger.

Assessment: Currently assets are equal to 24 times last year's contributions indicating a one-year asset loss of 10% would be equal to 2.4 times last year's contributions.

### Retirement Risk

Definition: This is the potential for participants to retire and receive subsidized benefits more valuable than expected.

Identification: This plan has valuable early retirement benefits. If participants retire at earlier ages than anticipated by the actuarial assumptions, it is expected that additional funding will be required.

### Investment Risk

Definition: The potential that investment returns will be different than expected.

Identification: To the extent that actual investment returns differ from the assumed investment return, the plan's future assets, funding contributions and funded status may differ significantly from those presented in this valuation.

### Interest Rate Risk

Definition: The potential that interest rates will be different than expected.

Identification: The pension liabilities reported herein have been calculated by computing the present value of expected future benefit payments using the interest rate(s) described in the report. If interest rate(s) in future valuations are different from those used in this valuation, future pension liabilities, funding contributions and funded status may differ significantly from those presented in this valuation. As a general rule, using a higher interest rate to compute the present value of future benefit payments will result in a lower pension liability, and vice versa. One aspect that can be used to estimate the impact of different interest rates is the plan's

Assessment: If the interest rate changes by 1%, the estimated percentage change in pension liability is approximately 11%.

## Actuarial Standard of Practice 51 (ASOP 51)

### Demographic Risks

Definition: The potential that mortality or other demographic experience will be different than expected.

Identification: The pension liabilities reported herein have been calculated by assuming that participants will follow patterns of demographic experience (e.g. mortality, withdrawal, disability, retirement, form of payment election, etc.) as described in the appendix. If actual demographic experience or future demographic assumptions are different from what is assumed to occur in this valuation, future pension liabilities, funding contributions and funded status may differ significantly from those presented in this valuation.

## Glossary of Terms

<b>Actuarial Liability</b>	The difference between the actuarial present value of all Fund benefits and the actuarial value of future normal costs. Also referred to as “actuarial accrued liability.”
<b>Actuarial Assumptions</b>	Estimates of future experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.
<b>Actuarial Cost Method</b>	A mathematical budgeting procedure of allocating the dollar amount of the actuarial present value of retirement fund benefit between future normal cost and actuarial accrued liability. Sometimes referred to as the “actuarial funding method.”
<b>Experience Gain (Loss)</b>	The difference between actual experience and anticipated experience based on the actuarial assumptions during the period between two actuarial valuation dates.
<b>Actuarial Present Value</b>	The amount of funds currently required to provide a payment or series of payments in the future. It is determined by discounting future payments at predetermined rates of interest and by probabilities of payment.
<b>Amortization</b>	Paying off an interest-discounted amount with periodic payments of interest and principal, as opposed to paying off with a lump sum payment.
<b>Normal Cost</b>	The actuarial present value of retirement fund benefits allocated to the current year by the actuarial cost method.
<b>Unfunded Actuarial Liability</b>	<p>The difference between actuarial liability and the valuation assets.</p> <p>Most retirement systems have unfunded actuarial liability. They arise each time new benefits are added, each time an actuarial loss is realized and when actuarial assumptions are modified.</p>
<b>Accumulated Benefits</b>	Sometimes referred to as Accrued Benefits. These are the benefits that have been earned by all plan members as of the valuation date.
<b>Actuarially Determined Contribution</b>	This is the annual contribution determined in accordance with a plan’s funding policy - typically the sum of the Normal Cost and an Amortization payment towards the Unfunded Actuarial Liability.



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## RETIREMENT PLAN FOR EMPLOYEES OF THE CITY OF CREVE COEUR

### GASB 67 and 68 DISCLOSURE

Fiscal Year: July 1, 2020 to June 30, 2021

**Prepared by**

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Communication: Gasb 67 68 (Milliman Reports)

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## Certification

Actuarial computations presented in this report under Statements No. 67 and 68 of the Governmental Accounting Standards Board are for purposes of assisting the City of Creve Coeur in fulfilling its financial accounting requirements. No attempt is being made to offer any accounting opinion or advice. This report is for fiscal year July 1, 2020 to June 30, 2021. The reporting date for determining plan assets and obligations is June 30, 2021. The calculations enclosed in this report have been made on a basis consistent with our understanding of the plan provisions. Determinations for purposes other than meeting financial reporting requirements may be significantly different than the results contained in this report. Accordingly, additional determinations may be needed for other purposes, such as judging benefit security or meeting employer funding requirements.

In preparing this report, we relied, without audit, on information as of June 30, 2021 and June 30, 2021 furnished by the City of Creve Coeur. This information includes, but is not limited to, statutory provisions, member census data, and financial information. Please see Milliman's funding valuation report dated October 13, 2021 for more information on the plan's participant group as of June 30, 2021 as well as a summary of the plan provisions and a summary of the actuarial methods and assumptions used for funding purposes.

We performed a limited review of the census and financial information used directly in our analysis and have found them to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different and our calculations may need to be revised.

We hereby certify that, to the best of our knowledge, this report, including all costs and liabilities based on actuarial assumptions and methods, is complete and accurate and determined in conformance with generally recognized and accepted actuarial principles and practices, which are consistent with the Actuarial Standards of Practice promulgated by the Actuarial Standards Board and the applicable Guides to Professional Conduct, amplifying Opinions and supporting Recommendations of the American Academy of Actuaries.

Each of the assumptions used in this valuation with the exception of those set by law was set based on industry standard published tables and data, the particular characteristics of the plan, relevant information from the plan sponsor or other sources about future expectations, and our professional judgment regarding future plan experience. We believe the assumptions are reasonable for the contingencies they are measuring, and are not anticipated to produce significant cumulative actuarial gains or losses over the measurement period.

This valuation report is only an estimate of the Plan's financial condition as of a single date. It can neither predict the Plan's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of Plan benefits, only the timing of Plan contributions. While the valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct. Determining results using alternative assumptions is outside the scope of our engagement.

## Certification

Future actuarial measurements may differ significantly from the current measurements presented in this report due to factors such as, but not limited to, the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of the actuarial assignment, we did not perform an analysis of the potential range of such future measurements.

The valuation results were developed using models intended for valuations that use standard actuarial techniques. In addition, Milliman has developed certain models to develop the expected long term rate of return on assets used in this analysis. We have reviewed the models, including their inputs, calculations, and outputs for consistency, reasonableness, and appropriateness to the intended purpose and in compliance with generally accepted actuarial practice and relevant actuarial standards of practice. The models, including all input, calculations, and output may not be appropriate for any other purpose.

Milliman's work is prepared solely for the internal use and benefit of the City of Creve Coeur. To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exceptions: (a) the Plan Sponsor may provide a copy of Milliman's work, in its entirety, to the Plan Sponsor's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit the City of Creve Coeur; and (b) the Plan Sponsor may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law.

No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their specific needs.

The consultants who worked on this assignment are pension actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the plan sponsor. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and has been prepared in accordance with generally recognized accepted actuarial principles and practices. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.



Michael Zwiener, FSA, MAAA  
Consulting Actuary



William Winningham, EA, MAAA  
Consulting Actuary

## Overview of GASB 67 and GASB 68

The Governmental Accounting Standards Board (GASB) released accounting standards for public pension plans and participating employers in 2012. These standards, GASB Statements No. 67 and 68, have substantially revised the accounting requirements previously mandated under GASB Statements No. 25 and 27. The most notable change is the distinct separation of funding from financial reporting. The Annual Required Contribution (ARC) has been eliminated under GASB 67 and 68 and is no longer relevant for financial reporting purposes. As a result, plan sponsors have been encouraged to establish a formal funding policy that is separate from financial reporting calculations.

GASB 67 applies to financial reporting for public pension plans and is required to be implemented for plan fiscal years beginning after June 15, 2013. Note that a plan's fiscal year might not be the same as the employer's fiscal year. Even if the plan does not issue standalone financial statements, but rather is considered a pension trust fund of a government, it is subject to GASB 67. Under GASB 67, enhancements to the financial statement disclosures are required, along with certain required supplementary information.

GASB 68 governs the specifics of accounting for public pension plan obligations for participating employers and is required to be implemented for employer fiscal years beginning after June 15, 2014. GASB 68 requires a liability for pension obligations, known as the Net Pension Liability, to be recognized on the balance sheets of participating employers. Changes in the Net Pension Liability will be immediately recognized as Pension Expense on the income statement or reported as deferred inflows/outflows of resources depending on the nature of the change.

## Executive Summary

### Relationship Between Valuation Date, Measurement Date, and Reporting Date

The Valuation Date is June 30, 2021. This is the date as of which the actuarial valuation is performed. The Measurement Date is June 30, 2021. This is the date as of which the net pension liability is determined. The Reporting Date is June 30, 2021. This is the plan's and/or employer's fiscal year ending date.

### Significant Changes

There have been no significant changes between the valuation date and fiscal year end.

### Participant Data as of June 30, 2021

Actives	31
Terminated vested & other inactives	18
Retirees and beneficiaries	<u>86</u>
Total	135

## Schedule of Employer Contributions

Fiscal Year Ending June 30	Actuarially Determined Contribution	Actual Employer Contribution	Contribution Deficiency (Excess)	Covered Payroll	Contribution as a % of Covered Payroll
2012	\$1,339,314	\$1,389,538	(\$50,224)	\$4,073,539	34.11%
2013	1,204,193	1,261,350	(57,157)	4,016,528	31.40%
2014	1,088,415	1,444,717	(356,302)	3,822,287	37.80%
2015	910,670	1,254,457	(343,787)	3,866,480	32.44%
2016	1,220,627	1,270,404	(49,777)	3,816,272	33.29%
2017	1,139,751	1,200,992	(61,241)	3,557,984	33.75%
2018	1,159,936	1,188,826	(28,890)	3,224,888	36.86%
2019	1,262,474	1,307,755	(45,281)	2,611,428	50.08%
2020	1,252,981	1,303,058	(50,077)	2,532,924	51.44%
2021	1,230,482	1,271,253	(40,771)	2,510,196	50.64%

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This work product was prepared solely for the City of Creve Coeur for the purposes described herein and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product.

## Actuarial Methods and Assumptions Used for Funding Policy

The following actuarial methods and assumptions were used in the June 30, 2021 funding valuation. Please see the valuation report dated October 13, 2021 for further details.

<b>Valuation Timing</b>	Actuarially determined contribution rates are calculated as of June 30
<b>Actuarial Cost Method</b>	Entry Age Normal
<b>Amortization Method</b>	
Level percent or level dollar	Level percent
Closed, open, or layered periods	Closed, 14 year term for UAL as of 07/01/2015 Open, 15 year period for any UAL arising after 07/01/2015
<b>Asset Valuation Method</b>	
Smoothing period	3 years
Corridor	None
<b>Inflation</b>	2.30%
<b>Salary Increases</b>	4.00%
<b>Investment Rate of Return</b>	6.00%
<b>Retirement Age</b>	Retirement rates are summarized in the 2021 Actuarial Valuation
<b>Turnover</b>	Turnover rates are summarized in the 2021 Actuarial Valuation
<b>Mortality</b>	Pub-2010 General Amount-Weighted Mortality tables for Employees, Healthy Retirees, Disabled Retirees and Contingent Survivors, male and female rates, with generational projection from 2010 using Scale MP-2020 (improvement scale updates published annually)

## Statement of Fiduciary Net Position

	June 30, 2020	June 30, 2021
<b>Assets</b>		
Cash and cash equivalents	\$711,008	\$264,515
Receivables and prepaid expenses:		
Receivable contributions	0	0
Receivable investment income	49,617	34,451
Receivables from brokers for unsettled trades	0	0
Prepaid expenses	0	0
Total receivables	49,617	34,451
Investments:		
Fixed income	7,737,736	9,029,376
Stocks	17,188,202	23,770,055
Short-term investments	0	0
Real estate	875,211	0
Alternative investments	0	0
Total investments	25,801,149	32,799,431
Invested securities lending cash collateral	0	0
Capital assets net of accumulated depreciation	0	0
Total assets	26,561,774	33,098,397
<b>Liabilities</b>		
Accrued expenses and benefits payable	0	0
Securities lending cash collateral	0	0
Payable to brokers for unsettled trades	188,285	0
Total liabilities	188,285	0
<b>Net position restricted for pensions</b>	\$26,373,489	\$33,098,397

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## Statement of Changes in Fiduciary Net Position

	June 30, 2021
<b>Additions</b>	
Member contributions	\$89,838
Employer contributions	1,271,253
Total contributions	1,361,091
Investment income (loss):	
Interest and dividends	741,075
Net increase in fair value of investments	6,655,773
Less investment expenses:	
Direct investment expense	37,572
Net investment income	7,359,276
Other income	0
Total additions	8,720,367
<b>Deductions</b>	
Service benefits	1,929,682
Disability benefits	N/A
Death benefits	N/A
Refunds of member contributions	N/A
Administrative expenses	65,777
Total deductions	1,995,459
Net increase (decrease)	6,724,908
<b>Net position restricted for pensions</b>	
Beginning of year (June 30, 2020)	26,373,489
End of year (June 30, 2021)	\$33,098,397

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## Money-Weighted Rate of Return

Fiscal Year Ending June 30	Net Money-Weighted Rate of Return
2012	0.23%
2013	12.87%
2014	17.86%
2015	1.99%
2016	1.15%
2017	11.43%
2018	7.83%
2019	5.69%
2020	2.46%
2021	27.90%

### Calculation of Money-Weighted Rate of Return

The money-weighted rate of return considers the changing amounts actually invested during a period and weights the amount of pension plan investments by the proportion of time they are available to earn a return during that period. External cash flows are determined on a monthly basis and are assumed to occur at the beginning of each month. External cash inflows are netted with external cash outflows, resulting in a net external cash flow in each month. The money-weighted rate of return is calculated net of investment expenses.

	Net External Cash Flows	Periods Invested	Period Weight	Net External Cash Flows With Interest
Beginning Value - July 1, 2020	\$26,373,489	12.00	1.00	\$33,730,948
Monthly net external cash flows:				
July	(169,079)	12.00	1.00	(216,247)
August	200,478	11.00	0.92	251,408
September	(148,264)	10.00	0.83	(181,857)
October	763,176	9.00	0.75	917,847
November	(169,479)	8.00	0.67	(199,854)
December	(149,452)	7.00	0.58	(172,378)
January	(149,584)	6.00	0.50	(169,167)
February	(153,049)	5.00	0.42	(169,712)
March	(152,572)	4.00	0.33	(165,478)
April	(156,819)	3.00	0.25	(166,768)
May	(160,666)	2.00	0.17	(167,529)
June	(189,058)	1.00	0.08	(192,816)
Ending Value - June 30, 2021	33,098,397			33,098,397
Money-Weighted Rate of Return				27.90%

## Long-Term Expected Rate of Return

The assumption for the long-term expected rate of return is determined by adding expected inflation to expected long-term real returns and reflecting expected volatility and correlation. The capital market assumptions are per Milliman's investment consulting practice as of June 30, 2021.

Asset Class	Target Allocation	Long-Term Expected Arithmetic Real Rate of Return
US Cash	1.00%	N/A*
US Core Fixed Income	27.00%	1.37%
US Large Caps	36.00%	5.15%
US Small Caps	2.00%	6.58%
US Mid Caps	1.00%	5.71%
US Large Value	6.00%	5.14%
US Small Value	1.00%	6.05%
Foreign Developed Equity	17.00%	6.27%
Emerging Markets Equity	9.00%	8.64%
Assumed Inflation - Mean		2.30%
<b>Long-Term Expected Rate of Return</b>		<b>6.00%</b>

\*Expected to earn less than inflation

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## Depletion Date Projection

GASB 67 and 68 generally require that a blended discount rate be used to measure the Total Pension Liability (the Actuarial Accrued Liability calculated using the Individual Entry Age Normal Cost Method). The long-term expected return on plan investments may be used to discount liabilities to the extent that the plan's Fiduciary Net Position (fair market value of assets) is projected to cover benefit payments and administrative expenses. A 20-year high quality (AA/Aa or higher) municipal bond rate must be used for periods where the Fiduciary Net Position is not projected to cover benefit payments and administrative expenses. Determining the discount rate under GASB 67 and 68 will often require that the actuary perform complex projections of future benefit payments and asset values. GASB 67 and 68 (paragraph 29) do allow for alternative evaluations of projected solvency, if such evaluation can reliably be made. GASB does not contemplate a specific method for making an alternative evaluation of sufficiency; it is left to professional judgment.

The following circumstances justify an alternative evaluation of sufficiency for the City of Creve Coeur:

- The City of Creve Coeur has at least a 5-year history of paying at least 100% of the Actuarially Determined Contribution (previously termed the Annual Required Contribution).
- The Actuarially Determined Contribution is based on a closed amortization period for the majority of the unfunded liability and a 15 year amortization for unfunded liability realized since July 1, 2015.
- GASB 67 and 68 specify that the projections regarding future solvency assume that plan assets earn the assumed rate of return and there are no future changes in the plan provisions or actuarial methods and assumptions, which means that the projections would not reflect any adverse future experience which might impact the plan's funded position.

Based on these circumstances, it is our professional opinion that the detailed depletion date projections outlined in GASB 67 and 68 will show that the Fiduciary Net Position is always projected to be sufficient to cover benefit payments and administrative expenses.

## Net Pension Liability

Net Pension Liability	June 30, 2020	June 30, 2021
Total pension liability	\$32,071,575	\$35,171,396
Fiduciary net position	26,373,489	33,098,397
Net pension liability	5,698,086	2,072,999
Fiduciary net position as a % of total pension liability	82.23%	94.11%
Covered payroll	2,532,924	2,510,196
Net pension liability as a % of covered payroll	224.96%	82.58%

The total pension liability was determined by an actuarial valuation as of the measurement date, calculated based on the discount rate and actuarial assumptions below.

### Discount Rate

Discount rate	6.75%	6.00%
Long-term expected rate of return, net of investment expense	6.75%	6.00%
Municipal bond rate	N/A	N/A

The plan's fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore, the discount rate for calculating the total pension liability is equal to the long-term expected rate of return.

### Other Key Actuarial Assumptions

The plan has not had a formal actuarial experience study performed.

Valuation date	June 30, 2020	June 30, 2021
Measurement date	June 30, 2020	June 30, 2021
Actuarial cost method	Entry Age Normal	Entry Age Normal
Inflation	2.50%	2.30%
Salary increases including inflation	4.00%	4.00%
Mortality	RP-2000 Combined Healthy Table with a 70% Blue Collar adjustment with a fully generational projection of mortality improvement using Scale BB	Pub-2010 General Amount-Weighted Mortality tables for Employees, Healthy Retirees, Disabled Retirees and Contingent Survivors, male and female rates, with generational projection from 2010 using Scale MP-2020 (improvement scale updates published annually)

Please see Milliman's funding valuation report dated October 13, 2021 for more detail.

## Changes in Net Pension Liability

Changes in Net Pension Liability	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
Balances as of June 30, 2020	\$32,071,575	\$26,373,489	\$5,698,086
Changes for the year:			
Service cost	267,260		267,260
Interest on total pension liability	2,118,808		2,118,808
Effect of plan changes	(2,229)		(2,229)
Effect of economic/demographic gains or losses	(200,891)		(200,891)
Effect of assumptions changes or inputs	2,846,555		2,846,555
Benefit payments	(1,929,682)	(1,929,682)	0
Employer contributions		1,271,253	(1,271,253)
Member contributions		89,838	(89,838)
Net investment income		7,359,276	(7,359,276)
Administrative expenses		(65,777)	65,777
Balances as of June 30, 2021	35,171,396	33,098,397	2,072,999

### Sensitivity Analysis

The following presents the net pension liability of the City of Creve Coeur, calculated using the discount rate of 6.00%, as well as what the City of Creve Coeur's net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower (5.00%) or 1 percentage point higher (7.00%) than the current rate.

	1% Decrease 5.00%	Current Discount Rate 6.00%	1% Increase 7.00%
Total pension liability	\$39,020,817	\$35,171,396	\$31,901,456
Fiduciary net position	33,098,397	33,098,397	33,098,397
Net pension liability	5,922,420	2,072,999	(1,196,941)

## Schedule of Changes in Net Pension Liability and Related Ratios

	Fiscal Year Ending June 30									
	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
<b>Total Pension Liability</b>										
Service cost	\$267,260	\$272,815	\$291,592	\$255,915	\$409,425	\$424,445	\$371,341	\$447,610	N/A	N/A
Interest on total pension liability	2,118,808	2,132,606	2,124,982	2,089,956	2,059,465	1,994,674	1,918,318	1,827,698	N/A	N/A
Effect of plan changes	(2,229)	(120,161)	0	0	0	0	0	0	N/A	N/A
Effect of economic/demographic gains or losses	(200,891)	(344,009)	(208,439)	187,078	(279,360)	21,701	64,357	3,949	N/A	N/A
Effect of assumption changes or inputs	2,846,555	0	0	793,015	0	0	1,832,668	0	N/A	N/A
Benefit payments	(1,929,682)	(2,343,780)	(1,817,650)	(1,657,854)	(1,544,910)	(1,457,024)	(1,392,017)	(1,508,007)	N/A	N/A
Net change in total pension liability	3,099,821	(402,529)	390,485	1,668,110	644,620	983,796	2,794,666	771,250	N/A	N/A
Total pension liability, beginning	32,071,575	32,474,104	32,083,619	30,415,509	29,770,889	28,787,093	25,992,427	25,221,177	N/A	N/A
Total pension liability, ending (a)	35,171,396	32,071,575	32,474,104	32,083,619	30,415,509	29,770,889	28,787,093	25,992,427	N/A	N/A
<b>Fiduciary Net Position</b>										
Employer contributions	\$1,271,253	\$1,303,058	\$1,307,755	\$1,188,826	\$1,200,992	\$1,270,402	\$1,254,457	\$1,444,717	N/A	N/A
Member contributions	89,838	96,152	86,614	99,041	107,272	112,251	93,099	74,183	N/A	N/A
Net investment income	7,359,276	630,154	1,464,646	1,893,838	2,499,524	251,339	426,117	3,245,642	N/A	N/A
Benefit payments	(1,929,682)	(2,343,780)	(1,817,650)	(1,657,854)	(1,544,910)	(1,457,024)	(1,392,017)	(1,508,007)	N/A	N/A
Administrative expenses	(65,777)	(31,015)	(52,266)	(44,133)	0	0	0	0	N/A	N/A
Net change in plan fiduciary net position	6,724,908	(345,431)	989,099	1,479,718	2,262,878	176,968	381,656	3,256,535	N/A	N/A
Fiduciary net position, beginning	26,373,489	26,718,920	25,729,821	24,250,103	21,987,225	21,810,257	21,428,601	18,172,066	N/A	N/A
Fiduciary net position, ending (b)	33,098,397	26,373,489	26,718,920	25,729,821	24,250,103	21,987,225	21,810,257	21,428,601	N/A	N/A
Net pension liability, ending = (a) - (b)	\$2,072,999	\$5,698,086	\$5,755,184	\$6,353,798	\$6,165,406	\$7,783,664	\$6,976,836	\$4,563,826	N/A	N/A
Fiduciary net position as a % of total pension liability	94.11%	82.23%	82.28%	80.20%	79.73%	73.85%	75.76%	82.44%	N/A	N/A
Covered payroll	\$2,510,196	\$2,532,924	\$2,611,428	\$3,224,888	\$3,557,984	\$3,816,272	\$3,866,480	\$3,822,287	N/A	N/A
Net pension liability as a % of covered payroll	82.58%	224.96%	220.38%	197.02%	173.28%	203.96%	180.44%	119.40%	N/A	N/A

This schedule is presented to illustrate the requirement to show information for 10 years. However, recalculations of prior years are not required, and if prior years are not reported in accordance with the current GASB standards, they should not be reported.

## Pension Expense

Pension Expense	July 1, 2019 to June 30, 2020	July 1, 2020 to June 30, 2021
Service cost	\$272,815	\$267,260
Interest on total pension liability	2,132,606	2,118,808
Effect of plan changes	(120,161)	(2,229)
Administrative expenses	31,015	65,777
Member contributions	(96,152)	(89,838)
Expected investment return net of investment expenses	(1,771,139)	(1,759,150)
Recognition of Deferred Inflows/Outflows of Resources		
Recognition of economic/demographic gains or losses	(315,201)	(252,820)
Recognition of assumption changes or inputs	0	2,189,658
Recognition of investment gains or losses	298,199	(1,076,391)
Pension Expense	431,982	1,461,075

As of June 30, 2021, the deferred inflows and outflows of resources are as follows:

Deferred Inflows / Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources
Differences between expected and actual experience	(\$46,359)	\$0
Changes of assumptions	0	656,897
Net difference between projected and actual earnings	(3,735,095)	0
Contributions made subsequent to measurement date	0	0
Total	(3,781,454)	656,897

Amounts currently reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

Year ended June 30:	
2022	(\$272,140)
2023	(840,563)
2024	(891,828)
2025	(1,120,026)
2026	0
Thereafter*	0

\* Note that additional future deferred inflows and outflows of resources may impact these numbers.

## Schedule of Deferred Inflows and Outflows of Resources

	Original Amount	Date Established	Original Rec. Period*	Amount Recognized in Pension Expense for FYE 06/30/2021	Amount Recognized in Pension Expense through 06/30/2021	Balance of Deferred Inflows as of 06/30/2021	Balance of Deferred Outflows as of 06/30/2021
<b>Economic/ demographic gains or losses</b>	(\$200,891)	6/30/2021	1.3	(\$154,532)	(\$154,532)	(\$46,359)	\$0
	(344,009)	6/30/2020	1.4	(98,288)	(344,009)	0	0
		Total		(252,820)	(498,541)	(46,359)	0
<b>Assumption changes or inputs</b>	2,846,555	6/30/2021	1.3	2,189,658	2,189,658	0	656,897
		Total		2,189,658	2,189,658	0	656,897
<b>Investment gains or losses</b>	(5,600,126)	6/30/2021	5.0	(1,120,025)	(1,120,025)	(4,480,101)	0
	1,140,985	6/30/2020	5.0	228,197	456,394	0	684,591
	256,329	6/30/2019	5.0	51,266	153,798	0	102,531
	(210,580)	6/30/2018	5.0	(42,116)	(168,464)	(42,116)	0
	(968,561)	6/30/2017	5.0	(193,713)	(968,561)	0	0
		Total		(1,076,391)	(1,646,858)	(4,522,217)	787,122
<b>Total for economic/demographic gains or losses and assumption changes or inputs</b>						(46,359)	656,897
<b>Net deferred (inflows)/outflows for investment gains or losses</b>						(3,735,095)	0
<b>Total deferred (inflows)/outflows</b>						(3,781,454)	656,897
<b>Total net deferrals</b>						(3,124,557)	

\* Investment (gains)/losses are recognized in pension expense over a period of five years; economic/demographic (gains)/losses and assumption changes or inputs are recognized over the average remaining service life for all active and inactive members.

**Milliman Financial Reporting Valuation**

	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability	Deferred (Inflows)	Deferred Outflows	Net Investment (Inflows)/ Outflows	Net Deferrals	Net Pension Liability plus Net Deferrals	Annual Expense
<b>Balances as of June 30, 2020</b>	(\$32,071,575)	\$26,373,489	(\$5,698,086)	(\$98,288)	\$0	\$788,640	\$690,352	(\$5,007,734)	
Service cost	(267,260)		(267,260)						267,260
Interest on total pension liability	(2,118,808)		(2,118,808)						2,118,808
Effect of plan changes	2,229		2,229						(2,229)
Effect of liability gains or losses	200,891		200,891	(200,891)			(200,891)		
Effect of assumption changes or inputs	(2,846,555)		(2,846,555)		2,846,555		2,846,555		
Benefit payments	1,929,682	(1,929,682)	0						
Administrative expenses		(65,777)	(65,777)						65,777
Member contributions		89,838	89,838						(89,838)
Expected net investment income		1,759,150	1,759,150						(1,759,150)
Investment gains or losses		5,600,126	5,600,126			(5,600,126)	(5,600,126)		
Employer contributions		1,271,253	1,271,253					1,271,253	
Recognition of liability gains or losses				252,820			252,820		(252,820)
Recognition of assumption changes or inputs					(2,189,658)		(2,189,658)		2,189,658
Recognition of investment gains or losses						1,076,391	1,076,391		(1,076,391)
Annual expense								(1,461,075)	1,461,075
<b>Balances as of June 30, 2021</b>	(35,171,396)	33,098,397	(2,072,999)	(46,359)	656,897	(3,735,095)	(3,124,557)	(5,197,556)	

Communication: Gasb 67 68 (Milliman Reports)

## Glossary

<b>Actuarially Determined Contribution</b>	A target or recommended contribution to a defined benefit pension plan for the reporting period, determined based on the funding policy and most recent measurement available when the contribution for the reporting period was adopted.
<b>Deferred Inflows/Outflows of Resources</b>	Portion of changes in net pension liability that is not immediately recognized in Pension Expense. These changes include differences between expected and actual experience, changes in assumptions, and differences between expected and actual earnings on plan investments.
<b>Discount Rate</b>	Single rate of return that, when applied to all projected benefit payments, results in an actuarial present value of projected benefit payments equal to the sum of:  <ol style="list-style-type: none"><li>1) The actuarial present value of benefit payments projected to be made in future periods where the plan assets are projected to be sufficient to meet benefit payments, calculated using the Long-Term Expected Rate of Return.</li><li>2) The actuarial present value of projected benefit payments not included in (1), calculated using the Municipal Bond Rate.</li></ol>
<b>Fiduciary Net Position</b>	Equal to market value of assets.
<b>Long-Term Expected Rate of Return</b>	Long-term expected rate of return on pension plan investments expected to be used to finance the payment of benefits, net of investment expenses.
<b>Money-Weighted Rate of Return</b>	The internal rate of return on pension plan investments, net of investment expenses.
<b>Municipal Bond Rate</b>	Yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher.
<b>Net Pension Liability</b>	Total Pension Liability minus the Plan's Fiduciary Net Position (unfunded accrued liability).
<b>Projected Benefit Payments</b>	All benefits estimated to be payable through the pension plan to current active and inactive employees as a result of their past service and expected future service.
<b>Service Cost</b>	The portion of the actuarial present value of projected benefit payments that is attributed to a valuation year.
<b>Total Pension Liability</b>	The portion of actuarial present value of projected benefit payments that is attributable to past periods of member service using the Entry Age Normal cost method based on the requirements of GASB 67 and 68.

## 2022 Pension Board Meeting Schedule

### Core Topics for all Meetings

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**Tuesday     January 18, 2022     3:00 p.m.**

Approval of Meeting Minutes  
Presentation of Quarterly Reports  
Discussion of other Topics as necessary  
Invoice(s) Paid Since Last Meeting  
Retirement(s) since last meeting  
Other Business

**Tuesday     April 19, 2022     3:00 p.m.**

Approval of Meeting Minutes  
Presentation of Quarterly Reports  
Discussion of other Topics as necessary  
Invoice(s) Paid Since Last Meeting  
Retirement(s) since last meeting  
Other Business

**Tuesday     July 19, 2022     3:00 p.m.**

Approval of Meeting Minutes  
Presentation of Quarterly Reports  
Discussion of other Topics as necessary  
Invoice(s) Paid Since Last Meeting  
Retirement(s) since last meeting  
Review Investment Policy Assumptions & Asset Allocations  
LAGERS Report  
Other Business

**Tuesday     October 18, 2022     3:00 p.m.**

Apoin Chair & Vice Chair  
Approval of Meeting Minutes  
Presentation of Quarterly Reports  
Actuarial Report  
Discussion of other Topics as necessary  
Invoice(s) Paid Since Last Meeting  
Retirement(s) since last meeting  
Other Business

*NOTE: Other meetings needed during the year will be scheduled when it is necessary.*

Communication: 2022 Meeting Schedule (Meeting Schedule)