

# 2022 Annual Investment Report

Corporate Planning & Financial Services

All figures stated in Canadian dollars unless otherwise noted



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### **Capital Markets Review**

2022 proved to be a challenging year for global capital markets as ongoing inflationary pressures, geopolitical instability, and tighter monetary policies led to negative returns in most asset classes combined with significant volatility in the markets.

Although consensus forecasts showed that central banks tightening monetary policy would be a headwind for the economy and markets, the path towards normalizing monetary policy was steeper than expected. The Bank of Canada and the US Federal Reserve both raised their target interest rates by a total of 425 basis points in 2022.

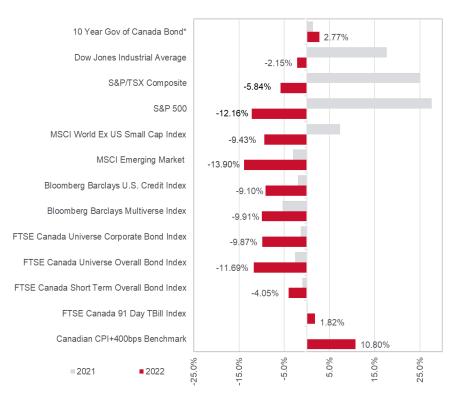
Equities and fixed income assets both struggled in 2022, with the S&P/TSX Composite (CAD) returning -5.8% and the FTSE Canada Universe Overall Bond Index returning -11.7%. Based on the S&P 500 Index and Bloomberg US Aggregate Index, since 1980, the equity market had four years with negative returns greater than 10%, and the bond market had five years with negative returns. 2022 was the third worst-performing year for the equity market and the worst year for the bond market since 1980 in terms of market returns.

Annual average prices for crude oil and natural gas increased by more than 38% and 66% year over year, respectively, largely due to geopolitical tensions in Europe and high inflation.

In 2022, the Canadian dollar (CAD) depreciated against the US dollar (USD) by 7%, although it strengthened against nearly every other major currency thanks to the strong commodity prices and a hawkish stance from the Bank of Canada. The weakness of the CAD/USD currency pair was mainly due to the outright strength of the US dollar, which had risen to the highest level in two decades.

Globally, Environmental, Social, and Governance (ESG) investing experienced a setback in 2022, with managed assets decreasing by 29% year over year. This was due to a decrease in asset values and a cash outflow, marking the first annual year-over-year decrease in a decade. In the long term, however, global asset managers expect to increase their ESG-related assets under management (AUM) to US\$33.9 trillion by 2026, from US\$18.4 trillion in 2021. With a projected compound annual growth rate of 12.9%, ESG assets are on pace to constitute 21.5% of total global AUM in less than 5 years, according to PwC.

### 2022 Capital Market Returns



#### \*Yield as of December 31, 2022

Source: CIBC Mellon, eVestment, Government of Canada, Refinitiv, Reuters, PwC

### **Investment Objectives**

The City of Calgary (The City) has three core investment objectives that drive all strategic investment decisions:

- 1. Preservation of Capital
  - a. Primary objective for total investment portfolio
- 2. Risk Mitigation
  - a. Diversification of asset classes and security holdings by sector, geography, and style
  - b. Policy constraints and limits
- 3. Investment Returns
  - a. Maximization of returns, relative to risk
  - b. Key considerations related to liquidity and investment time horizon requirements

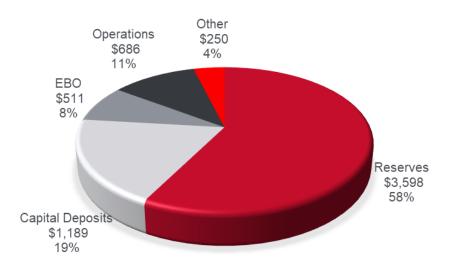
### **Sources of Investments**

The City of Calgary invests funds from the following sources:

- Reserves: operating, capital and sustainment
- Capital Deposits: off-site levies and government grants
- Funded Employee Benefit Obligations (EBO)
- General Operations
- Other: trusts and affiliated entities

### **Sources of Investments**

As at December 31, 2022 (\$ millions)



### **Summary of Investments**

#### **Total Assets Under Management**

As at December 31, 2022, the market value of The City's total investment portfolio was \$6.2 billion, an increase of \$180 million from \$6.1 billion in the previous year, predominantly due to an increase in the portfolio's cash position.

#### Market value and cost – last four quarters

\$ millions				
Market value	Q4/22	Q3/22	Q2/22	Q1/22
Internal Management				
Short Term Liquidity	1,448	1,810	1,478	1,198
External Management				
Short Term Fixed Income	1,819	1,807	1,767	1,782
Universe Fixed Income	1,836	1,801	1,798	1,876
Equities	643	596	607	596
Real Assets	451	337	319	270
Currency Overlay	35	41	44	46
Total	6,232	6,393	6,012	5,769

Cost	Q4/22	Q3/22	Q2/22	Q1/22
Internal Management				
Short Term Liquidity	1,448	1,810	1,478	1,198
External Management				
Short Term Fixed Income	1,900	1,892	1,848	1,834
Universe Fixed Income	1,994	1,977	1,979	1,970
Equities	692	685	654	561
Real Assets	416	295	283	224
Currency Overlay	43	41	44	41
Total	6,492	6,700	6,285	5,828

Totals may not add due to rounding

#### **Market Value of Investments**

The City's investment portfolio has grown by \$2.1 billion since year end 2017. The increase is driven by additions to sources of investments and investment returns.

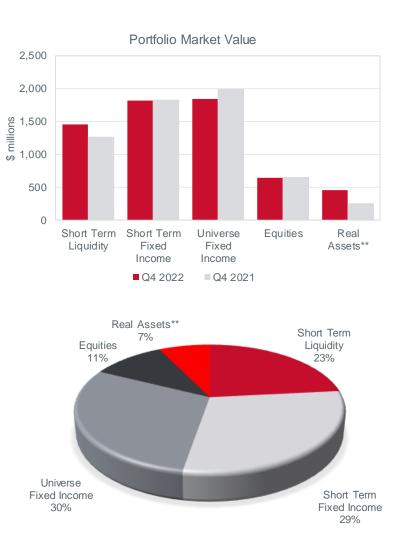
Going forward, the rate of asset growth will depend on contributions and withdrawals from reserves, capital expenditures and other factors.



#### AUM by Calendar Year

### **Investment Allocation**

Portfolio Manager/mandate	Market Value (\$ millions)	Allocation %
Short Term Liquidity	(\$ minons) 1,447.6	23.4%
Short Term Liquidity	1,447.6	23.4%
Short Term Fixed Income	1,819.0	29.4%
Short Term Universe Bonds	1,242.5	20.1%
CC&L Short Term	437.8	7.1%
PH&N Short Term	522.1	8.4%
Short-Term Bonds (Internal)	282.7	4.6%
Canadian Commercial Mortgages	576.4	9.3%
Addenda Mortgage	123.1	2.0%
PH&N - Mortgage	348.9	5.6%
Sun Life Mortgage	104.4	1.7%
Universe Fixed Income	1,835.9	29.6%
Universe Bonds	813.1	13.1%
CC&L Universe	328.9	5.3%
PH&N Universe	333.4	5.4%
BlackRock Universe	150.8	2.4%
Global Bonds	737.4	11.9%
Pimco	365.5	5.9%
Manulife	186.2	3.0%
BlackRock FIGO	185.6	3.0%
Private Credit*	285.5	4.6%
Sun Life PFIP	152.5	2.5%
Crestline SLF II	39.9	0.6%
Crestline SLF III	30.4	0.5%
Bridgepoint BDL II	50.6	0.8%
Brookfield BID III	12.2	0.2%
Equities	643.4	10.4%
Vanguard US ETF	272.1	4.4%
CC&L - International	179.5	2.9%
Wasatch	98.7	1.6%
Ashmore	93.1	1.5%
Real Assets**	451.1	7.3%
Brookfield IM	72.9	1.2%
Northleaf NICP II & NSIP	158.0	2.5%
Northleaf NICP III	40.2	0.6%
BlackRock GRP III	33.8	0.5%
CBRE GIF	146.3	2.4%



As at December 31, 2022, Source: The City of Calgary, CIBC Mellon

\* Private credit AUM does not include committed capital not yet deployed (\$83 million)

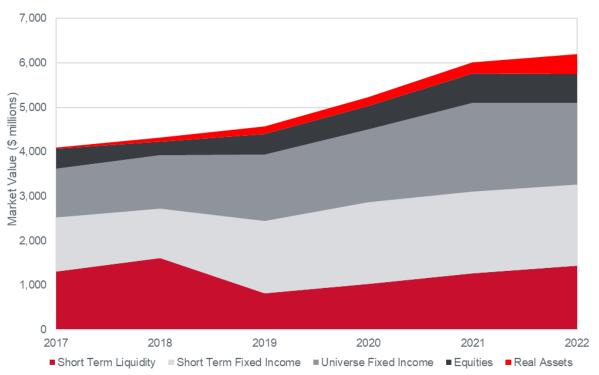
\*\*Real assets AUM does not include committed capital not yet deployed (\$78 million)

### **Investment Allocation (cont.)**

The City of Calgary investment policy was updated in 2020 to revise the aggregate asset mix to help mitigate investment risks and increase risk-adjusted returns. Through various sources of funding and investment returns, the market value of the City of Calgary's consolidated investment portfolio has increased from \$4,097 million in 2017 to \$6,232 million for the year ending 2022.

Over the same period, the portfolios that have grown most notably in size are longer term asset classes including the Universe Fixed income portfolio, which has increased from a market value of \$1,088 million to \$1,836 million. Private Credit allocations within the Universe Fixed Income portfolio have risen from \$4 million to \$286 million (excluding \$83 million of committed capital not yet deployed). Further, the Real Assets portfolio has grown from \$27 million to \$451 million (excluding \$78 million of committed capital not yet deployed). Lastly, the Short Term Liquidity portfolio has increased from \$1,306 million to \$1,448 million, although it has decreased from 32% to 23% of the consolidated portfolio.

Looking forward, The City will continue to fund longer term asset classes through new and existing commitments.



Investment Allocations

### **Investment Performance**

### **Historical Performance**

	Annualized Returns				Annı	ual Retur	ms		
	1 Year 3	3 Years	5 Years	ITD	2022	2021	2020	2019	2018
The City of Calgary Consolidated	-6.14	0.68	1.97	2.18	-6.14	2.06	6.53	6.46	1.48
Benchmark	-6.46	0.33	1.61	1.80	-6.46	1.28	6.65	5.55	1.62
Value Added	0.32	0.35	0.36	0.38	0.32	0.79	-0.12	0.91	-0.14
Short Term Liquidity	2.54	1.73	1.88	1.64	2.54	0.85	1.79	2.38	1.86
Benchmark	1.82	0.95	1.17	0.95	1.82	0.17	0.86	1.65	1.38
Value Added	0.73	0.78	0.71	0.69	0.73	0.68	0.93	0.73	0.48
Short Term Fixed Income	-3.78	0.64	1.53	1.86	-3.78	0.00	5.93	2.95	2.83
Benchmark	-4.05	0.00	1.12	1.47	-4.05	-0.93	5.19	2.89	2.76
Value Added	0.26	0.64	0.42	0.39	0.26	0.94	0.75	0.06	0.07
Universe Fixed Income	-8.55	-0.46	1.76	2.31	-8.55	-0.63	8.53	7.43	2.98
Benchmark	-9.77	-1.65	0.97	1.78	-9.77	-2.59	8.23	6.45	3.65
Value Added	1.23	1.20	0.79	0.53	1.23	1.96	0.30	0.98	-0.67
Equities	-16.09	-0.11	2.96	6.91	-16.09	12.07	5.98	23.99	-6.36
Benchmark	-12.43	5.72	6.32	8.57	-12.43	17.53	14.80	25.88	-8.66
Value Added	-3.66	-5.83	-3.36	-1.66	-3.66	-5.46	-8.82	-1.89	2.30
Real Assets	12.41	9.55	10.54	8.71	12.41	9.92	6.41	19.39	5.16
Benchmark	8.37	6.39	7.68	7.41	8.37	10.43	1.28	14.19	5.79
Value Added	4.04	3.16	2.86	1.30	4.04	-0.51	5.13	5.19	-0.63
Currency Hedge Overlay	-0.58	0.39	n.a.	0.14	-0.51	1.10	0.82	1.72	-1.96
Benchmark	0.00	0.00	n.a.	0.00	0.00	0.00	0.00	0.00	0.00
Value Added	-0.58	0.39	n.a.	0.14	1.10	1.10	0.82	1.72	-1.96

### **Performance Measurement Benchmarks**

The investment performance of all funds is reported to the Investment Advisory Committee on a quarterly basis and presented annually to The City's Audit Committee. Investment benchmarks are used for comparison purposes to assess the actual performance of The City's investment managers versus their respective performance benchmarks. Investment managers are expected to generate higher returns (net of fees) than the benchmark measure over a business cycle.

#### Short Term Fixed Income Portfolio

• FTSE Canada Short Term Bond Index (Addenda, Connor, Clark & Lunn (CC&L), Phillips, Hager & North (PH&N), Sun Life)

#### **Universe Fixed Income Portfolio**

- FTSE Canada Universe Bond Index (BlackRock, PH&N, CC&L)
- Bloomberg US Credit Index (PIMCO)
- Bloomberg Capital Multiverse Index Unhedged (\$ CAD) (Manulife)
- Bloomberg Global Aggregate Bond Index (BlackRock)
- FTSE Canada Universe Corporate Bond Index (Sun Life)
- S&P/LSTA Leveraged Loan Index (LLI) + 200 bps (Crestline, Brookfield)
- S&P European Leveraged Loan Index + 200 bps (Bridgepoint)

#### **Equity Portfolio**

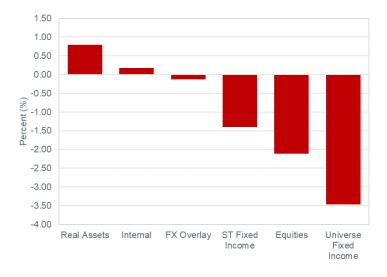
- MSCI All Country World Index (ACWI) ex-US Index (CC&L)
- S&P 500 Total Return Index (Vanguard US)
- MSCI Emerging Market (EM) Index (Ashmore)
- MSCI World Small Cap Index (Wasatch)

#### **Real Assets**

- Consumer Price Index (CPI) + 400 bps (Northleaf, Northleaf US, BlackRock GRP, CBRE CGIF)
- FTSE Global Core Infrastructure 50-50 Index (Brookfield)

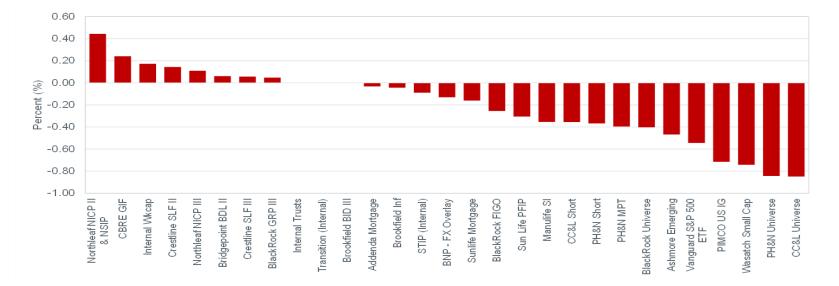
# **Contribution to Return**

### Portfolio Contribution to Return - 2022



### Mandate Contribution to Return – 2022

- The total City of Calgary consolidated portfolio return in 2022 was -6.1%
- Real Assets was the strongest contributor to returns in 2022 at 0.8%, followed by Internal Working Capital portfolios
- Universe Fixed Income and Equities were the largest detractors to total return at -3.5% and -2.1%, respectively



### **Investment Income**

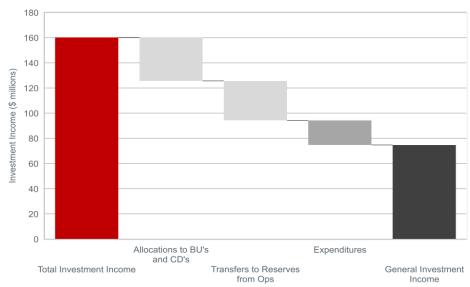
In 2022, The City of Calgary's total portfolio generated \$160.2 million of investment income before allocations and fees. Investment income is based on realized gains/losses, interest and dividends and excludes unrealized gains/losses. Corporate Total Investment Income was predominantly generated from higher interest income in the Short Term Liquidity portfolio and realized gains in the Real Assets and Equity portfolios. This income has been partially offset by realized losses in the Fixed Income portfolios mainly due to monetary policy tightening throughout 2022. As The City's investments have grown, expenditures, including investment management fees paid to external investment managers and interest expenses for the commercial paper program, have also increased.

Annual Investment Income (\$ millions) as at December 31	2017	2018	2019	2020 *	2021	2022
Corporate Total Investment Income	125.6	73.6	211.5	167.7	168.1	160.2
Allocations to Self-Supporting Business Units and Capital	40.2	22.0	43.1	52.0	48.5	34.6
Transfers to Reserves from Operations	27.2	19.0	41.0	47.0	43.1	31.3
Expenditures (net of receivables)	7.0	2.4	7.0	11.2	17.0	19.5
General Investment Income	51.2	30.2	120.4	57.6	59.4	74.7

\*In 2020, overall investment portfolio generated a general investment income of \$57.6 million versus the budgeted income target of \$36 million, and an excess income of \$21.6 million was allocated to the Established Area Growth Change Strategy Reserve

Prior to 2022, expenditures did not include embedded management fees for externally managed strategies. See "Expense Management" on p.28 for details.

#### Investment Income – 2022



# **Short Term Liquidity**

### **Investment Objective**

To generate investment income while preserving capital and providing liquidity for the cash flow requirements of all The City's funds.

#### **Performance (% net of fees)**

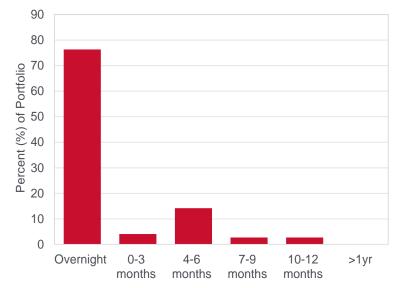
As at December 31, 2022

	Annualized Returns*			
	1 Year	3 Years	5 Years	ITD
Short Term Liquidity	2.54	1.73	1.88	1.64
Benchmark	1.82	0.95	1.17	0.95
Value Added	0.73	0.78	0.71	0.69

Benchmark: FTSE Canada 91 Day Treasury Bill Index \*Returns are for term deposits only

### **Portfolio Maturities**

As at December 31, 2022



### **Assets Under Management**

\$	millions
Term Deposits*	435.0
High Interest Savings & High Interest Notice Accounts	1,012.6
Closing Net Asset Value - December 31, 2022	1,447.6

\*Held at large Canadian financial institutions

### Positioning

The short term liquidity portfolio invests in a combination of corporate and bank paper, term deposits, and short term government and corporate bonds. All investments in the short term liquidity portfolio mature in one year or less. In 2022, cash balances remained significantly higher than usual as The City continues to receive higher rates holding cash with the banks compared to high credit quality short term instruments available in the market.

### **Investment Highlights**

The internally managed liquidity portfolio returned 2.5% in 2022, outperforming the benchmark return of 1.8%. The excess return achieved by the internal portfolio versus the benchmark is largely attributed to the aggressive high interest rates provided by The City's banking counterparties for liquid deposits.

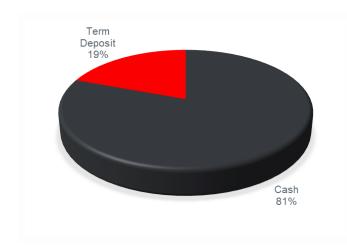
### **Forward Looking Strategy**

Treasury continuously assesses the benefits of holding overnight balances with the bank against returns available through short term investment vehicles, while also considering liquidity requirements. With continued high overnight cash balances, The City can access top tier overnight interest rates offered by the banks, while also maintaining liquidity in the portfolio.

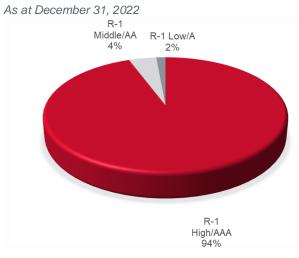
# Short Term Liquidity (cont.)

### **Asset Type**

As at December 31, 2022



### **Credit Quality \***



\*Term deposits only

### **Commercial Paper Program**

To supplement The City's liquidity requirements, The City has a \$300 million Commercial Paper program which was 100% utilized throughout 2022. The high utilization rate reflects The City's ability to issue Commercial Paper at rates lower than what we receive in our liquid high interest rate accounts.

### **Short Term Fixed Income**

### **Investment Objective**

To provide exposure to short term Canadian fixed income securities and commercial mortgages, with an emphasis on capital preservation and income generation.

#### **Performance (% net of fees)**

As at December 31, 2022

	Annualized Returns			
	1 Year	3 Years	5 Years	ITD
Short Term Bonds	-3.78	0.64	1.53	1.86
Benchmark	-4.05	0.00	1.12	1.47
Value Added	0.26	0.64	0.42	0.39

Benchmark: FTSE TMX Canada Short Term Bond Index

### Composition

	AUM	% of	Current	Duration
Mandate	(\$ millions)	portfolio	Yield (%)	(years)
Addenda Mortgage	123.1	7%	6.15%	1.8
CC&L Short Term	437.8	24%	4.60%	2.7
PH&N Short Term	522.1	29%	4.68%	2.6
PH&N Mortgage	348.9	19%	5.86%	3.1
Sun Life Mortgage	104.4	6%	5.60%	3.8
Short Term Bonds (Internal)	282.7	16%	n.a.	n.a.
Short Term Bonds	1,819.0			

#### **Assets Under Management**

	\$ millions
Opening Net Asset Value - January 1, 2022	1,832.9
Cash Flows	55.5
Portfolio Gains & Losses*	-69.4
Closing Net Asset Value - December 31, 2022	1,819.0

\*Includes realized/unrealized capital gains and losses, dividends, and interest income

#### Positioning

In 2022 The City increased its allocation to the internal Short Term Income Portfolio. The allocation to corporate bonds increased as credit spreads widened to more attractive levels.

### **Investment Highlights**

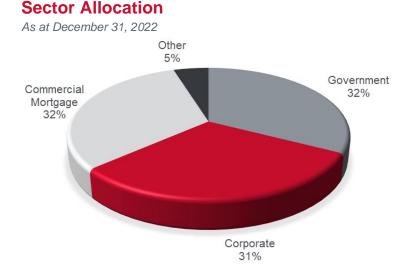
The short term fixed income portfolio returned -3.8% in 2022 vs. the benchmark return of -4.1%. Current yields are in the 4-6% range, up from 1-3% at year-end 2021.

Canadian commercial mortgages underperformed short term public bonds due to mortgage spreads widening more than corporate spreads.

### **Forward Looking Strategy**

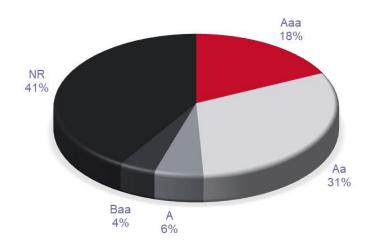
The City plans to reduce the short term fixed income portfolio to fund infrastructure and real estate commitments in the real asset portfolio.

### Short Term Fixed Income (cont.)



#### **Credit Quality**

As at December 31, 2022



*NR* – not rated, includes commercial mortgages (we estimate the average bond equivalent credit rating of commercial mortgages at 'Baa')

### **Geographic Allocation**

As at December 31, 2022 the short term fixed income portfolio is 100% allocated to Canada.

#### **Responsible Investing**

Manager	PRI Signatory	PRI Rating	Other Ratings
Addenda	$\checkmark$	A+	
CC&L	$\checkmark$	А	
PH&N	$\checkmark$	A+	AA (MSCI)
Sun Life	$\checkmark$	А	AAA (MSCI)

\*PRI – the United Nations Principles for Responsible Investing

- Addenda has a belief that there is no meaningful long-term perspective without taking ESG factors into account.
- CC&L believes that many ESG factors have a material impact on investment risk and return across time horizons and asset classes. CC&L is a member of various domestic and global industry organizations that promote best practices surrounding ESG.
- ESG integration is a core pillar of PH&N's approach to Responsible Investment. PH&N believes that active, engaged, and responsible asset owners can empower firms to enhance the long-term, sustainable performance of their investments.
- Sun Life produces an annual Sustainability Report which focuses on financial security, healthier lives, and sustainable investing. Sun Life was also voted into the top 100 of the world's most sustainable corporations in 2022.

### **Universe Fixed Income**

### **Investment Objective**

To provide exposure to longer term Canadian and global fixed income securities and private credit investments, with an emphasis on capital preservation and income generation.

#### **Performance (% net of fees)**

As at December 31, 2022

	Annualized Returns			
	1 Year	3 Years	5 Years	ITD
Universe Fixed Income	-8.55	-0.46	1.76	2.31
Benchmark	-9.77	-1.65	0.97	1.78
Value Added	1.23	1.20	0.79	0.53

Benchmark: FTSE TMX Canada Universe Bond Index

### Composition

	AUM	% of	Current	Duration
Mandate	(\$ millions)*	portfolio	Yield (%)	(years)
CC&L Universe	328.9	18%	4.40%	7.3
PH&N Universe	333.4	18%	4.52%	7.1
BlackRock Universe	150.8	8%	n.a.	n.a.
Canadian Universe	813.1	44%		
Pimco US IG	365.5	20%	5.77%	6.5
Manulife Strategic Income	186.2	10%	5.65%	4.9
BlackRock FIGO	185.6	10%	n.a.	n.a.
Global Fixed Income	737.4	40%		
Sun Life PFIP	152.5	8%	6.22%	5.4
Crestline SLF II	39.9	2%	n.a.	n.a.
Crestline SLF III	30.4	2%	n.a.	n.a.
Bridgepoint BDL II	50.6	3%	7.80%	n.a.
Brookfield BID III	12.2	1%	n.a.	n.a.
Private Credit	285.5	<b>16%</b>		
Universe Fixed Income	1,835.9			

\* Private credit AUM does not include committed capital not yet deployed (\$10 million to Crestline SLF III; \$3 million to Bridgepoint BDL II; \$70 million to Brookfield BID III)

### **Assets Under Management**

	\$ millions
Opening Net Asset Value - January 1, 2022	1,996.1
Cash Flows	10.4
Portfolio Gains & Losses*	-170.6
Closing Net Asset Value - December 31, 2022	1,835.9

\*Includes realized/unrealized capital gains and losses, dividends, and interest income.

### Positioning

The allocation to real asset and government credits increased in 2022, while corporate exposure decreased. Overall portfolio duration is slightly lower than benchmark.

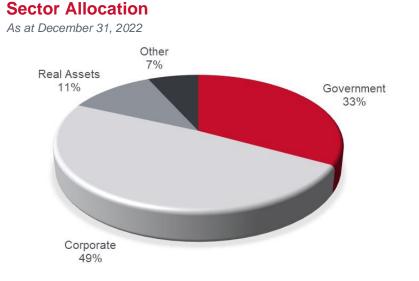
### **Investment Highlights**

The universe fixed income portfolio returned -8.6% in 2022 vs. the benchmark return of -9.8%. Positive returns from private credit partially offset negative returns from public bonds. USD exposure was a positive contributor for the Universe Fixed Income Portfolio in 2022. Current yields are in the 4-8% range, up from 3-6% at year-end 2021.

### Forward Looking Strategy

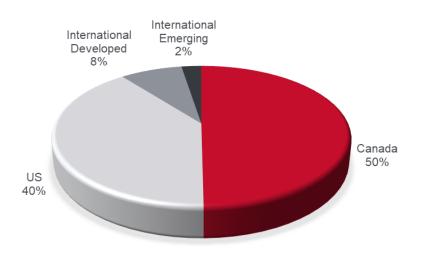
The City will continue to allocate to the private credit markets through existing commitments to Crestline SLF III; Bridgepoint BDL II and Brookfield BID III) and may look to make further commitments in 2023.

# **Universe Fixed Income (cont.)**

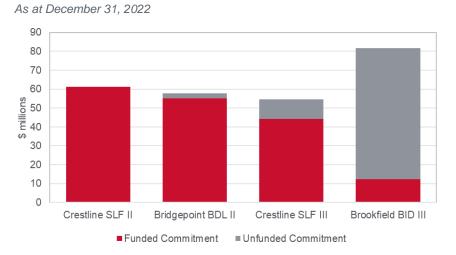


### **Geographic Allocation**

As at December 31, 2022



### **Committed Capital**



### **Responsible Investing**

Manager	PRI Signatory	PRI Rating	Other Ratings
BlackRock	$\checkmark$	A+	AA (MSCI)
Bridgepoint	$\checkmark$	A+	
Brookfield	$\checkmark$	n.a.*	AA (MSCI)
Crestline	$\checkmark$	n.a.*	
Manulife	$\checkmark$	A+	AA (MSCI)
Pimco	$\checkmark$	A+	

\*has not gone through official ratings process

- BlackRock views the analysis of ESG risks and opportunities as essential for sustainable investment.
- Brookfield expects to release the results of its PRI rating in the fourth quarter of 2023.

### **Equities**

#### **Investment Objective**

Investment in a diversified portfolio of global equities located in developed and emerging markets to achieve long term capital appreciation, dividend income and to help mitigate the effects of inflation.

#### **Performance (% net of fees)**

As at December 31, 2022

	Annualized Returns			
	1 Year	3 Years	5 Years	ITD
Equities	-16.09	-0.11	2.96	6.91
Benchmark	-12.43	5.72	6.32	8.57
Value Added	-3.66	-5.83	-3.36	-1.66

Benchmark: MSCI All Country World Index

### Composition

	AUM	% <b>o</b> f		Current
Mandate	(\$ millions)	portfolio	Strategy	Yield (%)
Vanguard US ETF	272.1	42%	Index	1.67%
CC&L International	179.5	28%	Quantitative	3.46%
Wasatch Small Cap	98.7	15%	Active	0.68%
Ashmore Emerging Markets	93.1	14%	Active	2.42%
Equities	643.4			

#### **Assets Under Management**

	\$ millions
Opening Net Asset Value - January 1, 2022	655.8
Cash Flows	91.0
Portfolio Gains & Losses*	-103.4
Closing Net Asset Value - December 31, 2022	643.4

\*Includes realized/unrealized capital gains and losses, dividends, and interest income

φ .....

### Positioning

The equity portfolio is a mix of index replication, quantitative and actively managed strategies. In 2022 The City increased US equities from 43% to 52% of the equity portfolio, reducing the overweight in international stocks compared to the benchmark.

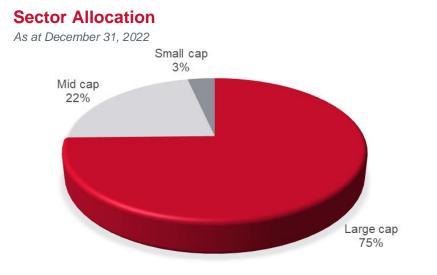
#### **Investment Highlights**

The equity portfolio returned -16.1% in 2022 vs. the benchmark return of -12.4%. Stocks rebounded over 8% in the fourth quarter following a volatile prior nine months.

#### **Forward Looking Strategy**

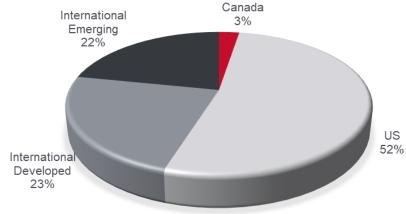
Equities had a strong start to 2023, but volatility has risen due to uncertainty regarding the global economic outlook. The City positions the equity portfolio to outperform its benchmark over the long term.

# **Equities (cont.)**

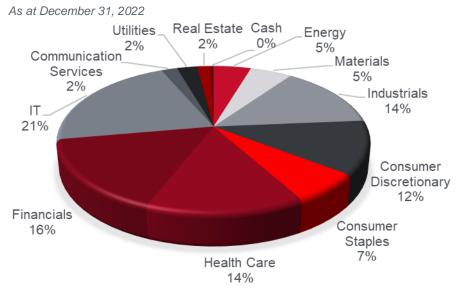


### **Geographic Allocation**





#### **Sector Allocation**



#### **Responsible Investing**

Manager	PRI Signatory	PRI Rating	Other Ratings
Ashmore	~	А	
Vanguard	$\checkmark$	A+	
Wasatch	$\checkmark$	А	

- Ashmore has been considering ESG factors into its investment approach since 1992.
- ESG factors are integrated into the due diligence process by Wasatch to reduce risk and maximize long-term returns.

# **Real Assets**

### **Investment Objective**

Investment in infrastructure assets to help mitigate the effects of inflation and diversification in risk-seeking assets.

### Performance (% net of fees)

As at December 31, 2022

	A	Annualized Returns			
	1 Year	3 Years	5 Years	ITD	
Real Assets	12.41	9.55	10.54	8.71	
Benchmark	8.37	6.39	7.68	7.41	
Value Added	4.04	3.16	2.86	1.30	

Benchmark: Canadian CPI +4.0%

### Composition

Mandate	AUM (\$ millions)**	% of portfolio	Current Yield (%)	Inception Date*
Brookfield Global Listed Infra	72.9	16%	2.50%	Mar-15
Northleaf NICP II & NSIP	158.0	35%	3.20%	Jan-17
Northleaf NICP III	40.2	9%	0.00%	Mar-21
BlackRock GRP III	33.8	7%	n.m.	Jun-21
CBRE GIF	146.3	32%	n.m.	May-22
Real Assets	451.1			

\* The City of Calgary engagement date

\*\* Real assets AUM does not include committed capital not yet deployed (\$14 million to Northleaf NICP II & NSIP; \$24 million to Northleaf NICP III; and \$40 million to BlackRock GRP III)

n.m. – not meaningful

### **Assets Under Management**

	\$ millions
Opening Net Asset Value - January 1, 2022	253.0
Cash Flows	153.4
Portfolio Gains & Losses*	44.7
Closing Net Asset Value - December 31, 2022	451.1

 $^{*} \mbox{Includes realized/unrealized capital gains and losses, dividends, and interest income$ 

### Positioning

The real asset portfolio consists of public and private infrastructure investments across four main sectors: Utilities & Renewables, Transports, Energy Infrastructure and Communications. Real Assets increased \$198 million primarily to a new infrastructure investment, increasing exposure to the communications sector.

### **Investment Highlights**

The real asset portfolio returned 12.4% in 2022 vs. the benchmark return of 8.4%. USD exposure was a positive contributor to returns and value added in 2022.

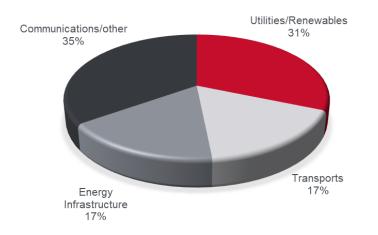
### **Forward Looking Strategy**

The City will continue to allocate to existing infrastructure mandates through existing commitments to BlackRock Global Renewable Power Fund III, and Northleaf NICP III and may look to make further commitments in 2023.

# **Real Assets (cont.)**

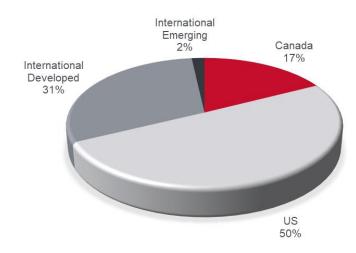
### **Sector Allocation**

As at September 30, 2022(latest available)

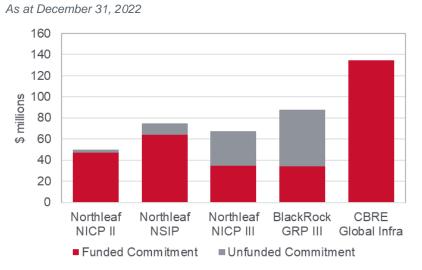


### **Geographic Allocation**

As at September 30, 2022(latest available)



### **Committed Capital**



### **Responsible Investing**

Manager	PRI Signatory	PRI Rating	Other Ratings
BlackRock	$\checkmark$	A+	AA (MSCI)
Brookfield	$\checkmark$	n.a.*	AA (MSCI)
CBRE	$\checkmark$	A+	
Northleaf	$\checkmark$	А	

\*has not gone through official ratings process

- Brookfield is affiliated with at least 5 organizations that work towards a sustainable future.
- CBRE has announced its commitment to achieve net-zero carbon emissions by 2040 (10 years ahead of Paris Agreement goal).

# **Currency Overlay**

### **Investment Objective**

To reduce the negative impact on returns due to foreign currency exposure in externally managed accounts.

The notional value to which BNP Paribas manages the portfolio is based on the foreign currency exposures of The City's underlying portfolio, excluding all non-CAD exposures that represent less than 1% of the portfolio NAV.

### **Performance (% net of fees)**

As at December 31, 2022

	Annualized Returns								
	1 Year	3 Years	5 Years	ITD					
Currency Overlay	-0.58	0.39	n.a.	0.14					
Benchmark	0.00	0.00	n.a.	0.00					
Value Added	-0.58	0.39	n.a.	0.14					

Benchmark: Zero Benchmark (passive)

#### **Assets Under Management**

	\$ millions
Opening Net Asset Value - January 1, 2022	41.1
Cash Flows	0.8
Portfolio Gains & Losses*	-6.6
Closing Net Asset Value - December 31, 2022	35.3

\*Includes realized/unrealized capital gains and losses, dividends, and interest income

### Positioning

BNP Paribas reviews net foreign currency exposures for The City's portfolio, and at their discretion, implements a hedge between 0% and 100% for each underlying currency exposure. As of year-end 2022, the portfolio's average hedge ratio was 16%.

#### **Investment Highlights**

Foreign currency exposure was \$1.2 billion at year-end 2022.

The CAD depreciated 6.8% vs. the USD in 2022, ending the year at \$0.7383 CAD/USD.

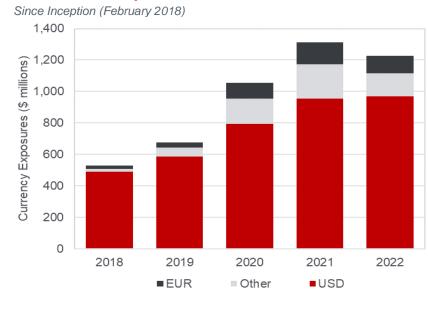
The portfolio strategy underperformed the zero benchmark in 2022 by 0.6%. The positive impact of USD exposure in Equity, Real Asset and Fixed Income Portfolios offset the losses in the Currency Overlay.

### Forward Looking Strategy

The active foreign exchange hedging policy aims to manage risk in periods of volatility. BNP Paribas started 2023 with a relatively low hedge ratio of 16%.

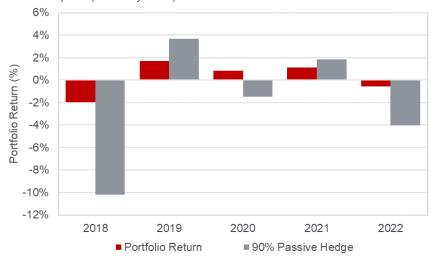
# **Currency Overlay (cont.)**

### **Benchmark Exposures as at December 31**

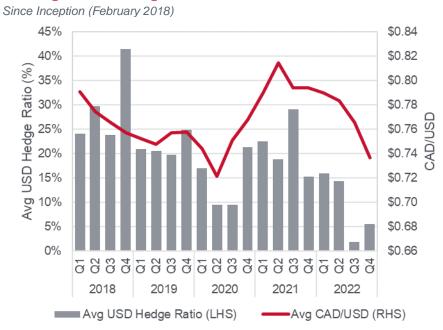


### **Historical Performance**

Since Inception (February 2018)



#### Average USD Hedge Ratio



### **Responsible Investing**

Manager	PRI Signatory	PRI Rating	Other Ratings
<b>BNP</b> Paribas	$\checkmark$	A+	AA (MSCI)

• BNP Paribas released several reports throughout 2022 advocating for the advancement of ESG reporting criteria.

### 2023 Economic & Capital Market Outlook

The International Monetary Fund (IMF) forecasts the global economy to grow by 2.9% in 2023, falling from an estimated 3.4% in 2022. There are several key themes in 2023 which continue to weigh on the global economy from 2022:

- The rise in central bank rates to fight inflation;
- Geopolitical tension in Ukraine continues to weigh on economic activity;
- Impact of the reopening of China on the global economy and supply chains

The decline in growth is forecasted to be driven by advanced economies where central banks are raising interest rates to calm stubbornly high inflation. Global inflation is set to fall from 8.8% in 2022 (annual average) to 6.6% in 2023. The projected disinflation partly reflects declining international fuel and nonfuel commodity prices due to weaker global demand and the cooling effects of monetary policy tightening on underlying (core) inflation. In emerging markets and developing economies, growth is estimated to have bottomed out in 2022, and it is expected to pick up in China with the full reopening in 2023.

According to the IMF, Canadian economic growth is projected to stall through the middle of 2023, then pick up in late 2023, recording 1.5% of annual Gross Domestic Product (GDP) growth. The tightening of monetary policy initially slowed housing activity followed by consumer demand for durables in the middle of 2022. The effects of the rise in interest rates are expected to broaden and moderate consumer spending on services as well as investment spending in 2023. CPI inflation is forecast to fall to 3% in mid-2023 and return to the 2% target in 2024.

Although there are headwinds expected in the growth of the global economy, The City's diversified investments in alternative asset classes, including infrastructure, real estate, and direct lending could help mitigate the negative impact of the unfavourable economic environments.

(% Change, YoY)		2021	2022 (E)	2023 (P)	2024 (P)
	Global	6.2	3.4	2.9	3.1
	Euro Area		3.5	0.7	1.6
GDP	Emerging countries	6.7	3.9	4.0	4.2
GDP	Canada	5.0	3.5	1.5	1.5
	United States	5.9	2.0	1.4	1.0
	China	8.4	3.0	5.2	4.5
CPI	Global	4.7	8.8	6.6	4.3
CFI	Canada*	3.4	6.8	3.6	2.3
Commodity	Oil	65.8	39.8	-16.2	-7.1
Commodity	Non-fuel	26.4	7.0	-6.3	-0.4

(E): Estimate (P): Projections, Source: IMF, \* Bank of Canada

### Compliance

Portfolio Manager/mandate	Market Value (\$ millions)	In Compliance?	Exceptions
Short Term Fixed Income	(¢ minorio)		
Short Term Universe Bonds			
CC&L Short Term	437.8	Yes	
PH&N Short Term	522.1	Yes	
Canadian Commercial Mortgages			
Addenda Mortgage	123.1	Yes	
PH&N Mortgage	348.9	Yes	
Sun Life Mortgage	104.4	Yes	
Universe Fixed Income			
Universe Bonds			
CC&L Universe	328.9	Yes	
PH&N Universe	333.4	Yes	
BlackRock Universe	150.8	Yes	
Global Bonds			
Pimco	365.5	Yes	
Manulife	186.2	Yes	
BlackRock FIGO	185.6	Yes	
Private Credit			
Sun Life PFIP	152.5	Yes	
Crestline SLF II	39.9	Yes	
Crestline SLF III	30.4	Yes	
Bridgepoint BDL II	50.6	Yes	
Brookfield BID III*	12.2	n/a	
Equities			
Vanguard S&P US	272.1	n/a	
CC&L International	179.5	Yes	
Wasatch	98.7	Yes	
Ashmore	93.1	Yes	
Real Assets			
Brookfield IM	72.9	Yes	
Northleaf NICP II & NSIP*	158.0	Yes	
Northleaf NICP III*	40.2	Yes	
BlackRock GRP III*	33.8	Yes	
CBRE GIF*	146.3	Yes	

\* Based on the latest compliance certificate available; the information is expected to be updated in April 2023.

### **Investment Governance**

The City's Investment & Governance Policy (CP2020-02) articulates the governance framework for the management of City investments. It sets out the accountability, reporting, and disclosure requirements for all investment activity. This policy establishes the roles and responsibilities of Council, the Investment Advisory Committee (IAC), Administration, and external investment managers regarding the management of portfolio investments.

Council approves The City's Investment & Governance Policy, receives the Annual Investment Report through Audit Committee, and delegates authority to manage investment-related policies to Administration. The IAC oversees The City's investment program to ensure that investments are effectively managed in accordance with legislation, Council-approved policies, and industry best practices.

In 2020, The City completed a comprehensive investment strategy review which resulted in a new Investment & Governance Policy, approved by Council in June 2020. The review entailed a major examination of City funds and obligations including operating and capital requirements, capital deposits, and short-term liquidity to fully understand the characteristics, including risk tolerance, time horizon, and liquidity requirements of these funds. A new internal Funds Policy established objectives and asset mixes for each source of funds under management. The internal Investment Portfolios Policy provides detail on how each asset class portfolio is managed. The revised aggregate asset mix has the potential to increase sector and geographic diversification of assets to mitigate investment risks and increase risk-adjusted returns.

### **Responsible Investing (RI) Considerations**

Responsible Investing (RI) has been referred to as sustainable investment and can potentially lead to better financial returns while having positive impacts both socially and environmentally. Three key pillars of RI include:

- ESG Integration
- Value alignment
- Overall impact of investments

The City's Investment Team plans to integrate a Responsible Investing framework into the investment process. This initiative may include, although are not limited to, the integration of RI in asset allocation and manager selection processes, developing a Manager ESG scorecard, and developing an RI section to be added to existing investment policies.

### Environmental, Social, and Governance (ESG) Considerations

ESG refers to three key factors in the investment process that can impact the financial value and sustainability of an investment. These factors are environmental, social, and corporate governance.

Factoring good governance and sustainable business practices into the investment process is becoming common practice in the institutional investment industry. Studies of stock returns indicate a positive correlation between stock price performance and a company's rating on an ESG index. More recent studies show that as ESG factor screens become more prevalent in the industry, companies with poor governance do not attract wide-scale investment and returns may suffer as a result.

Good governance takes many forms. It includes following local environmental regulations, labour and safety standards, as well as sound corporate board and executive management structures. An important component of ESG and sustainable investing is engagement with company management. Institutional investors can exercise influence over companies by engaging in dialogue with them and taking an active role in proxy voting. Shareholders can use their influence and voting authority to modify a company's ESG practices to enhance long-term value.

When The City of Calgary is selecting or reviewing an external investment manager The City monitors how ESG is implemented not only in the execution of investment management decisions but also how the investment manager implements ESG in its own operations. Most of The City's investment manadets include fundamental analysis where The City's managers meet directly with external investment managers to gain a thorough understanding of their structure and business practices. By partnering with like-minded investment managers, The City can ensure its corporate values are reflected in its investment holdings.

#### **Risk Management and Compliance**

The City manages investment risk through a sound governance framework and comprehensive investment policies. These policies define investment objectives, appropriate diversification requirements, eligible asset classes and security instruments, investment strategies, and quality and quantity constraints.

The City's primary risk management tool is effective governance of funds with strategic implementation and diversification at both the security and portfolio level. Investment managers apply rigorous investment analysis and practices to select securities and construct portfolios that are diversified among security types, maturity dates, issuers, industry sectors, and geographically by country and region. Additionally, The City constructs a total portfolio of diverse strategies, asset classes, and investment manager styles. A prudently diversified portfolio should reduce the overall impact if performance from any one security, asset class, or investment manager underperforms.

When investing in the capital markets, some risk is inevitable. This includes liquidity, market, credit, and interest rate risk from inflation and rising interest rates. The key is to identify and understand the risks being accepted. The City monitors advanced risk metrics at both the manager and total portfolio level to ensure that the level of risk taken is in line with The City's risk tolerance and that The City is meeting its investment objectives.

The City's investments are held electronically at a securities custodian. One control the custodian provides is independent, third-party settling and reporting of all trades which protects The City's investable assets. The custodian provides independent verification of all accounting information and security holdings. The City also receives third-party performance measurement and reporting. Return performance reported by

The City's investment managers is verified and compared against both market benchmarks and peers which allows The City to effectively evaluate manager performance.

Compliance statements from investment managers are received quarterly. Compliance statements are verified and maintained by Treasury. During the year, all investments complied with the Municipal Government Act, the Major Cities Investment Regulation and The City of Calgary's investment policies.

#### **Expense Management**

The City uses external investment managers to manage much of its investments. These managers are carefully selected and monitored by its own team of internal investment managers. External managers can provide expertise in more specialized asset classes and have a great deal of resources in terms of investment personnel, other professionals, and systems. The size of The City's portfolio and allocations is such that it can receive very favourable pricing when investing in these funds. In 2022, expenditures were approximately \$19.5 million compared to \$17.0 million in 2021. Prior to 2022, expenditures did not include embedded management fees for externally managed strategies.

As part of the governance framework, cost effectiveness is assessed through annual participation in surveys conducted by CEM Benchmarking and Municipal Benchmarking Network Canada. Participation in cost benchmarking services provides The City with a comparison of investment management costs against other municipalities.

In 2021, external investment manager costs were 42.6 bps, which was 7.1 bps lower than Canadian median of funds that participated in the CEM benchmarking survey. The City's investment portfolio has a significantly different asset mix than other cities.

CEM Benchmarking data for 2022 will become available in Q4 of 2023.

### **Definitions/Glossary**

Benchmark	A standard against which the performance of an investment manager can be measured. Generally, broad market stock and bond indexes are used for this purpose.
Diversification	A risk-management technique that mixes a wide variety of investments within a portfolio. The rationale behind this technique contends that a portfolio of different kinds of investments will, on average, yield higher returns and result in lower price volatility than individual investments found within the portfolio.
	Diversification strives to smooth unsystematic risk events in a portfolio so that the positive performance of some investments will neutralize the negative performance of others. Therefore, the benefits of diversification will hold if the securities in the portfolio are not perfectly correlated
Duration	Measures the sensitivity of the full price of a bond (including accrued interest) to a change in interest rates.
Infrastructure Investments	Investments in Canadian and global businesses that focus on a variety of public sponsored and private quality infrastructure assets such as toll roads, utilities, renewable energy, communications, and transportation and healthcare facilities.
Investment Managers	Those firms or individuals appointed by the Chief Financial Officer for the investment of each Fund's assets. Includes both internal and external managers.
Market Value	The price at which a security is trading in the open market.
Portfolio	Collection of assets held by an investor.
PRI	The Principles for Responsible Investment is an independent organization advocating on behalf of responsible investment. They seek to understand the investment implications of ESG factors, and work to support its international network of investor signatories in incorporating these factors into their investment and ownership decisions.
Rate of Return	The gain or loss of an investment over a specified period, expressed as a percentage increase over the initial investment cost. Gains on investments include any income received from the security, plus realized and unrealized capital gains.
Risk-Adjusted Return	A standardized measure of investment return based on an adjustment for the level of risk involved in generating that return.

### **Appendix 1 – Mandate Level Returns**

### **Short Term Fixed Income**

		Annualize	ed Returns	Annual Returns					
(%)	1 Year	3 Years	5 Years	ITD	2022	2021	2020	2019	2018
PH&N Short Term	-3.37	0.71	1.42	1.76	-3.37	-0.63	6.39	3.06	1.92
Benchmark *	-4.05	0.03	1.01	1.35	-4.05	-0.93	5.29	3.09	1.91
Value Added	0.67	0.68	0.41	0.41	0.67	0.30	1.10	-0.04	0.00
CC&L Short Term	-3.87	0.35	1.22	1.60	-3.87	-0.82	5.98	3.06	2.05
Benchmark *	-4.05	0.03	1.01	1.35	-4.05	-0.93	5.29	3.09	1.91
Value Added	0.18	0.32	0.21	0.25	0.18	0.11	0.69	-0.04	0.14
Short Term Bonds (internal)	-2.02	n.a.	n.a.	-1.32	-2.02	n.a.	n.a.	n.a.	n.a.
Benchmark *	-4.05	n.a.	n.a.	-2.53	-4.05	n.a.	n.a.	n.a.	n.a.
Value Added	2.03	n.a.	n.a.	1.21	2.03	n.a.	n.a.	n.a.	n.a.
PH&N Mortgage	-5.30	0.49	1.69	2.22	-5.30	1.50	5.57	3.04	3.99
Benchmark *	-4.05	0.03	1.01	1.18	-4.05	-0.93	5.29	3.09	1.91
Value Added	-1.25	0.46	0.68	1.05	-1.25	2.43	0.28	-0.05	2.07
Addenda Mortgage	-1.27	2.09	2.77	2.70	-1.27	1.90	5.75	3.56	4.05
Benchmark *	-4.05	0.03	1.01	0.90	-4.05	-0.93	5.29	3.09	1.91
Value Added	2.78	2.06	1.76	1.79	2.78	2.83	0.46	0.47	2.13
Sunlife Mortgage	-7.07	0.16	n.a.	1.12	-7.07	0.76	7.31	4.06	n.a.
Benchmark *	-4.05	0.03	n.a.	0.79	-4.05	-0.93	5.29	3.09	n.a.
Value Added	-3.03	0.13	n.a.	0.33	-3.03	1.69	2.02	0.97	n.a.

\*FTSE Canada Short Term Overall Bond Index

### **Universe Fixed Income**

	Α	nnualized	d Returns		Annual Returns				
(%)	1 Year	3 Years	5 Years	ITD	2022	2021	2020	2019	2018
PH&N Universe	-11.15	-1.42	0.73	2.08	-11.15	-2.33	10.40	6.74	1.41
Benchmark *	-11.69	-2.20	0.27	1.62	-11.69	-2.54	8.68	6.87	1.41
Value Added	0.53	0.78	0.46	0.46	0.53	0.21	1.72	-0.13	0.01
CC&L Universe	-11.36	-1.61	0.59	1.97	-11.36	-1.99	9.63	6.79	1.27
Benchmark *	-11.69	-2.20	0.27	1.62	-11.69	-2.54	8.68	6.87	1.41
Value Added	0.32	0.59	0.32	0.35	0.32	0.54	0.95	-0.08	-0.14
BlackRock Universe	-11.72	-2.28	0.23	0.59	-11.72	-2.60	8.55	6.93	1.35
Benchmark *	-11.69	-2.20	0.27	0.64	-11.69	-2.54	8.68	6.87	1.41
Value Added	-0.04	-0.08	-0.05	-0.05	-0.04	-0.07	-0.14	0.06	-0.05
Pimco US IG	-8.71	-0.86	n.a.	3.04	-8.71	-0.80	7.60	8.36	n.a.
Benchmark **	-9.10	-1.43	n.a.	2.67	-9.10	-1.92	7.43	8.04	n.a.
Value Added	0.38	0.57	n.a.	0.37	0.38	1.12	0.17	0.32	n.a.
Manulife Strategic Income	-8.47	-0.14	1.42	1.75	-8.47	0.42	8.34	8.77	-0.93
Benchmark ***	-9.91	-2.97	-0.02	-0.14	-9.91	-5.32	7.11	1.72	7.52
Value Added	1.44	2.83	1.44	1.89	1.44	5.74	1.23	7.05	-8.45
BlackRock FIGO	-6.33	-0.20	n.a.	0.88	-6.33	0.47	5.63	n.a.	n.a.
Benchmark ****	-10.16	-3.07	n.a.	-2.79	-10.16	-5.52	7.28	n.a.	n.a.
Value Added	3.83	2.88	n.a.	3.67	3.83	5.99	-1.65	n.a.	n.a.

\* FTSE Canada Universe Overall Bond Index

\*\* Bloomberg U.S. Credit Index

\*\*\* Bloomberg Multiverse Index

\*\*\*\* Bloomberg Global Aggregate Index

### **Universe Fixed Income (cont.)**

	Annualized Returns				Annual Return				ns		
(%)	1 Year	3 Years	5 Years	ITD	2022	2021	2020	2019	2018		
Sunlife PFIP	-9.06	-0.50	n.a.	1.68	-9.06	-0.35	8.70	6.50	n.a.		
Benchmark*	-9.87	-1.12	n.a.	1.41	-9.87	-1.34	8.74	8.05	n.a.		
Value Added	0.81	0.62	n.a.	0.27	0.81	0.99	-0.03	-1.55	n.a.		
Bridgepoint BDL II	6.83	8.02	n.a.	4.82	6.83	4.99	12.38	0.69	n.a.		
Benchmark **	-0.71	3.12	n.a.	2.01	-0.71	-1.07	11.64	-0.19	n.a.		
Value Added	7.54	4.90	n.a.	2.81	7.54	6.06	0.74	0.88	n.a.		
Crestline SLF II	16.30	13.00	11.86	11.09	16.30	15.42	7.49	6.05	14.47		
Benchmark ***	8.62	6.06	6.94	6.36	8.62	6.31	3.32	5.15	11.49		
Value Added	7.67	6.94	4.92	4.73	7.67	9.11	4.18	0.90	2.99		
Crestline SLF III	14.22	n.a.	n.a.	12.00	14.22	n.a.	n.a.	n.a.	n.a.		
Benchmark ***	8.62	n.a.	n.a.	7.28	8.62	n.a.	n.a.	n.a.	n.a.		
Value Added	5.60	n.a.	n.a.	4.71	5.60	n.a.	n.a.	n.a.	n.a.		
Brookfield BID III	n.a.	n.a.	n.a.	0.92	n.a.	n.a.	n.a.	n.a.	n.a.		
Benchmark****	n.a.	n.a	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.		
Value Added	n.a.	n.a	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.		

\* FTSE Canada Universe Corporate Bond Index

\*\* S&P European Leveraged Loan Index + 200bps

\*\*\* S&P/LSTA Leveraged Loan Index (LLI) + 200bps

\*\*\*\* Fund launched in December, only a partial indicative return is available as of the reporting date

### **Equities**

	Annualized Returns				Annual Returns					
(%)	1 Year	3 Years 5	Years	ITD	2022	2021	2020	2019	2018	
Vanguard US ETF	-13.71	8.62	n.a.	9.97	-13.71	27.76	16.25	n.a.	n.a.	
Benchmark *	-12.16	9.25	n.a.	10.53	-12.16	27.61	16.32	n.a.	n.a.	
Value Added	-1.55	-0.63	n.a.	-0.56	-1.55	0.15	-0.07	n.a.	n.a.	
CC&L International Q	-8.76	4.67	n.a.	6.20	-8.76	12.25	11.97	n.a.	n.a.	
Benchmark **	-9.43	2.02	n.a.	3.82	-9.43	7.37	9.18	n.a.	n.a.	
Value Added	0.67	2.65	n.a.	2.38	0.67	4.88	2.79	n.a.	n.a.	
Wasatch Smallcap Developed	-27.43	n.a.	n.a.	-0.22	-27.43	11.62	n.a.	n.a.	n.a.	
Benchmark ***	-12.44	n.a.	n.a.	8.00	-12.44	15.19	n.a.	n.a.	n.a.	
Value Added	-14.99	n.a.	n.a.	-8.22	-14.99	-3.58	n.a.	n.a.	n.a.	
Ashmore Emerging Markets	-19.48	-5.02	n.a.	-2.14	-19.48	-5.15	12.19	n.a.	n.a.	
Benchmark ****	-13.90	-0.90	n.a.	1.03	-13.90	-3.06	16.60	n.a.	n.a.	
Value Added	-5.58	-4.12	n.a.	-3.17	-5.58	-2.09	-4.41	n.a.	n.a.	

\* S&P 500 - Total Return Index

\*\* MSCI All Country World Ex United States Index

\*\*\* MSCI World Small Cap Index

\*\*\*\* MSCI Emerging Markets Index

### **Real Assets**

	Annualized Returns					Annı	ual Retur	ns	
(%)	1 Year 3	3 Years !	5 Years	ITD	2022	2021	2020	2019	2018
Northleaf NICP II & NSIP	16.13	11.62	10.27	8.49	16.13	6.19	12.78	8.20	8.35
Benchmark *	10.80	8.13	7.24	7.05	10.80	9.22	5.45	6.67	6.18
Value Added	5.34	3.49	3.03	1.44	5.34	-3.03	7.32	1.52	2.18
Brookfield Global Listed Infra	-2.66	3.35	5.68	4.18	-2.66	18.94	-4.67	26.40	-5.53
Benchmark **	2.05	3.09	5.58	6.51	2.05	13.90	-5.74	20.14	-0.30
Value Added	-4.70	0.26	0.09	-2.33	-4.70	5.04	1.08	6.27	-5.23
Northleaf NICP III	15.74	n.a.	n.a.	18.88	15.74	n.a.	n.a.	n.a.	n.a.
Benchmark *	10.80	n.a.	n.a.	10.07	10.80	n.a.	n.a.	n.a.	n.a.
Value Added	4.95	n.a.	n.a.	8.81	4.95	n.a.	n.a.	n.a.	n.a.
BlackRock GRP III	12.05	n.a.	n.a.	2.59	12.05	n.a.	n.a.	n.a.	n.a.
Benchmark *	10.80	n.a.	n.a.	10.04	10.80	n.a.	n.a.	n.a.	n.a.
Value Added	1.26	n.a.	n.a.	-7.45	1.26	n.a.	n.a.	n.a.	n.a.
CBRE CGIF	n.a.	n.a.	n.a.	17.59	n.a.	n.a.	n.a.	n.a.	n.a.
Benchmark *	n.a.	n.a.	n.a.	6.00	n.a.	n.a.	n.a.	n.a.	n.a.
Value Added	n.a.	n.a.	n.a.	11.59	n.a.	n.a.	n.a.	n.a.	n.a.

\* CPI + 400bps

\*\* FTSE Global Core Infrastructure 50/50 Index