## pfm **)** asset management

# King County Investment Pool

**Portfolio Review** 

Quarter Ended December 31, 2022 717.232.2723

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## **Executive Summary**

Purpose, Scope and Approach	<ul> <li>PFM Asset Management LLC ("PFM") prepared this report to update our ongoing analysis and to address any Investment Pool developments since our September 2022 review. Our approach included a detailed portfolio analysis and Investment Policy review, based on the County's Investment Policy, dated July 26, 2017.</li> <li>Our analysis was based on the Investment Pool's holdings as of December 31, 2022, with reference to holdings in past periods.</li> <li>The review encompasses all current investments in the County's Investment Pool.</li> </ul>
Investment Program and Portfolio Review	<ul> <li>PFM Asset Management reviewed the County's portfolio with respect to Investment Policy Compliance, Sector Allocation, Issuer Concentration, Credit Quality, Maturity Distribution, and Duration Distribution.</li> <li>The County's Investment Pool appears to provide ample liquidity, is well diversified, and is of sound credit quality. All holdings are investment grade and pose very low risk to principal.</li> </ul>
Market Recap	<ul> <li>U.S. economic conditions are characterized by: <ul> <li>High inflation that shows signs of slowing</li> <li>Continued strong labor market</li> <li>Potentially declining health of U.S. household finances</li> <li>Expectations for a modest yet broad economic downturn</li> </ul> </li> <li>The Federal Reserve is expected to wrap up their normalization process <ul> <li>Slowing pace of rate hikes</li> <li>Fed projecting short-term fed funds rate to reach 5.00% to 5.25% by year-end, with markets expecting rate cuts in the second half of 2023</li> <li>Fed officials reaffirm that restoring price stability is the utmost priority, despite risks of overtightening</li> </ul> </li> <li>Volatile markets are potentially calming <ul> <li>Treasury yields in the belly of the curve (3-7 years) ended the quarter slightly lower, while shorter and longer maturities ended higher</li> <li>Yield curve inversion has deepened further since last quarter</li> <li>While still elevated, volatility and liquidity challenges have begun subsiding</li> </ul> </li> </ul>
Observations	<ul> <li>The portfolio is of very high credit quality. The majority of securities (approximately 88%) are explicitly guaranteed or carry a high level of support by the U.S. Government (U.S. Treasury, federal agency and U.S. instrumentalities) and/or possess overnight liquidity (Washington State LGIP, bank deposits, and repurchase agreements).</li> <li>The County maintained broad issuer diversification during the quarter.</li> <li>The Portfolio's duration over the quarter was 83% of the benchmark's duration.</li> <li>The County increased its allocation to overnight liquidity, from 8% last quarter to 10% this quarter (or \$828.5 million) invested in a combination of the State LGIP, bank deposits, and repurchase agreements.</li> </ul>

## **Portfolio Review**

I. Investment Policy Summary

#### II. Sector Allocation

- U.S. Treasuries
- Federal Agencies
- Supranational Agencies
- Commercial Paper
- Corporate Notes
- Repurchase Agreements
- LGIP and Cash Equivalents
- III. Issuer Concentration
- IV. Overall Credit Quality
- V. Maturity and Duration Distribution



## **Investment Policy Summary**

• The Investment Policy summary is based on the current Investment Policy for the County Investment Pool, dated July 26, 2017.

Туре	Maximum Portfolio Allocation	Issuer Restrictions	Credit Ratings	Maturity Restrictions
U.S. Treasuries	100%	None	N/A	Up to 5 years
U.S. Agencies	100%	35% exposure to any single Agency	Senior debt obligations issued by any government sponsored enterprise, agency or instrumentality of the United States.	Up to 5 years
Repurchase Agreements – Top Tier Rating (A-1 or P1)	100%	<ul><li>100% for repurchase agreements with the Federal Reserve Bank of New York</li><li>25% maximum exposure to any one repo counterparty.</li><li>For the purposes of aggregating issuers across sectors, overnight repo counterparties are not included.</li></ul>	<ol> <li>The counterparty must have:</li> <li>A rating in the highest short-term credit rating category by at least one Nationally Recognized Statistical Rating Organization (NRSRO) or possess a guarantee by an entity with such a rating; and</li> <li>A minimum asset and capital size of \$5 billion in assets and \$175 million in capital</li> </ol>	60 days or less
Repurchase Agreements – Second Tier Rating (A-2 or P-2)	10%	5% maximum exposure to any one repo counterparty. For the purposes of aggregating issuers across sectors, overnight repo counterparties shall NOT be included.	<ol> <li>A rating in the second highest short-term credit rating category by at least one Nationally Recognized Statistical Rating Organization (NRSRO) or possesses a guarantee by an entity with such a rating; and</li> <li>A minimum asset and capital size of \$5 billion in assets and \$175 million in capital</li> </ol>	Overnight only
Reverse Repurchase Agreement	20%	5% per investment dealer	<ol> <li>Rated in the highest short-term credit rating category by at least one NRSRO or possesses a guarantee by an entity with such a rating; and</li> <li>A minimum asset and capital size of \$5 billion in assets and \$175 million in capital</li> </ol>	6 months or less
Local Government Investment Pool ("LGIP")	25%	State of Washington LGIP	N/A	N/A

## Investment Policy Summary (cont'd)

Туре	Maximum Portfolio Allocation	Issuer Restrictions	Credit Ratings	Maturity Restrictions
Bankers' Acceptances25%When combined with Term Repos (greater than overnight), Certificates of Deposit, Commercial Paper and Corporate Notes not to exceed 50% of the Pool assets.		Must be issued by a bank organized and operating in the U.S. Maximum 5% per issuer applied across investment types.	Rated in the highest short-term credit rating category by at least two NRSROs.	Up to 180 days
Certificates of Deposit	25% When combined with Banker's Acceptance, Term Repos (greater than overnight), Commercial Paper and Corporate Notes not to exceed 50% of the Pool assets.	Must be a public depository in the State of Washington. Maximum 5% per issuer applied across investment types.	See RCW 39.58 of the state Code. If not 100% collateralized, must be rated in the highest short-term rating category by at least one NRSRO. Those institutions not meeting the 100% collateralization or minimum credit requirements may receive deposits up to the FDIC or federally guaranteed amounts.	Up to 1 year
When combined with Banker's Acceptance, Certificates of Deposit, Term Repos (greater than overnight) and Corporate Notes not to exceed 50%		Secondary market purchases only. Must be issued by a bank or corporation organized and operating in the U.S. Maximum 3% per issuer in combined categories of commercial paper and corporate notes. Maximum 5% per issuer applied across investment types.	Purchases with greater than 100 days maturity must have an issuer long-term rating in one of the three highest credit rating categories by one major NRSRO. Rated in the highest short-term rating category by at least two major NRSROs. If the commercial paper is rated by more than two major NRSROs, it must have the highest rating from all of the organizations. State law requires that Commercial Paper be purchased only from dealers.	270 days
General Obligation Municipal Bonds	20%	5% of portfolio: bond issues by pool participants must be purchased on the secondary market only	Rated in at least the highest three long-term rating categories by at least one NRSRO.	5 years

## Investment Policy Summary (cont'd)

Туре	Maximum Portfolio Allocation	Issuer Restrictions	Credit Ratings	Maturity Restrictions
Mortgage-Backed Securities	25%       Must be issued by Federal Age the United States.         Investments in MBS will count the total that can be invested in agency as described in U.S. Ag above.         Full faith and credit MBS are lin 25%.		Senior debt obligations issued by any government sponsored enterprise, agency or instrumentality of the United States. The securities must pass the Federal Financial Institutions Examination Council ("FFIEC") suitability test, which banks use to determine lowest risk securities.	5 year average life at time of purchase
Corporate Notes	25% of total market value when combined with commercial paper When combined with Banker's Acceptance, Certificates of Deposit, Commercial Paper and Term Repos (greater than overnight) not to exceed 50% of the Pool assets.	<ul> <li>3% per issuer rated AA or better.</li> <li>2% per issuer rated in broad single A category.</li> <li>Split ratings will take most conservative rating.</li> <li>Maximum 3% per issuer in combined categories of commercial paper and corporate notes.</li> <li>Maximum 5% per issuer applied across investment types.</li> </ul>	Must be rated at least in the broad single A category or better. Broad single A category with a negative outlook may not be purchased.	5 years The maximum duration of the corporate notes portfolio shall not exceed 3 years.

#### Additional Notes to the Investment Policy

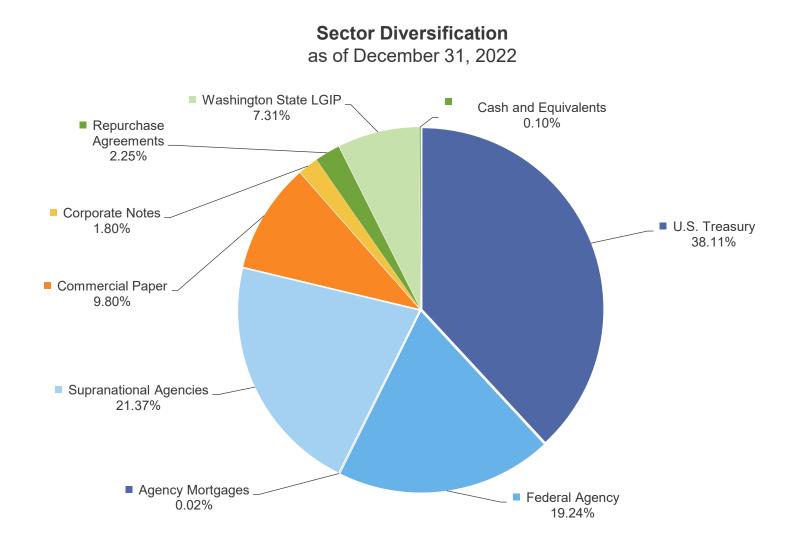
- The Pool will maintain an effective duration of 1.5 years or less.
- The Pool will maintain at least 40% of its total value in securities having a remaining maturity of 12 months or less.
- Floating rate and variable rate securities are permitted subject to the following criteria:
  - 1) The rate on the FRN/VRN resets no less frequently than quarterly; and
  - 2) The FRN/VRN is indexed to a money market rate.
- Major NRSRO is defined as Moody's and Standard & Poor's.
- Purchases prior to 9/15/16 are considered grandfathered in for issuer limit purposes and can be held to maturity.

## **Investment Policy Review**

Торіс	Observations
Sector Allocation	<ul> <li>All sector allocations fall within the limits set forth by the County's Investment Policy Statement. The Pool is predominantly invested in U.S. government securities which are either explicitly guaranteed or carry a high level of support by the U.S. government.</li> <li>The County's Investment Pool balance (market value) as of December 31, 2022, was \$8.6 billion, a \$0.1 billion increase from last quarter.</li> <li>The County's Investment Pool decreased allocation to U.S. Treasuries (-0.83%), Federal Agencies (-2.11%), Commercial Paper (-0.26%), Repurchase Agreements (-0.78%), and Cash &amp; Cash Equivalents (-0.08%).</li> <li>Over the quarter, allocation increased to the following sectors: Supranational Agencies (+1.03%) and the Washington State LGIP (+3.03%).</li> <li>All sectors remain within applicable policy limits.</li> </ul>
Credit Quality	<ul> <li>Approximately 79% of the County pool's assets are directly guaranteed or supported by the U.S. government and roughly 5% of the assets are indirectly guaranteed via a portion of the State LGIP allocation and its underlying investments.</li> <li>Combined corporate allocations (both commercial paper and corporate notes) decreased slightly to 11.60% of the portfolio from 11.86% last quarter, and all securities remain investment grade. Combined allocations to corporate notes and commercial paper continue to be below the maximum allocation limit of 25%.</li> <li>Total allocations to corporate related issues also do not exceed the 50% allocation limit set forth in the County's Investment Policy.</li> </ul>
Maturity Distribution	<ul> <li>All maturities fall within the limits set forth in the County's Investment Policy.</li> <li>Approximately 61% of the Pool's assets mature in one year or less, above the minimum of 40% that is mandated by the Investment Policy.</li> </ul>

Security Type	Market Value(\$)	Allocation Percentage	Within Policy Limits	Max Maturity Held	Within Policy Limits
U.S. Treasury	\$3,267,342,910	38.11%	√	4.13 years	✓
Supranational Agencies	\$1,832,447,663	21.37%	✓	3.30 years	✓
Corporate Notes	\$154,424,809	1.80%	✓	3.61 years	✓
Federal Agency	\$1,649,405,024	19.24%	✓	2.27 years	✓
Washington State LGIP	\$626,804,475	7.31%	✓	1 day	✓
Repurchase Agreement	\$193,000,000	2.25%	✓	1 day	✓
Commercial Paper	\$840,164,550	9.80%	✓	244 days	✓
Cash and Equivalents	\$8,649,888	0.10%	✓	1 day	✓
Agency Mortgages	\$1,364,404	0.02%	✓	3.33 years (WAL)	✓
TOTAL	\$8,573,603,723	100.00%			

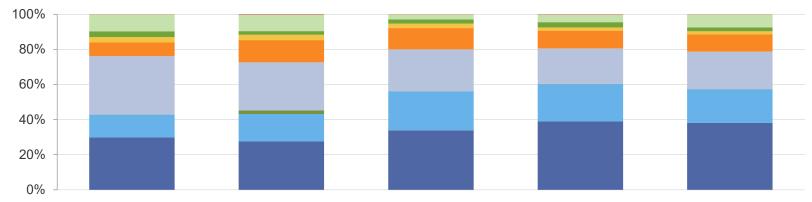
#### **Sector Allocation**



## Changes In Portfolio Sector Allocation over the Past 12 Months

	<ul> <li>The portfolio increased exposure to Supranational Agencies (+1.03%) and the Washington State LGIP (+3.03%) while decreasing its exposure to U.S. Treasuries (-0.83%), Federal Agencies (-2.11%), Commercial Paper (-0.26%), Repurchase agreements (-0.78%), and Cash &amp; Cash Equivalents</li> </ul>
	(-0.08%). • U.S. Treasuries During the fourth quarter, exposure to U.S. Treasuries saw a slight decrease from 38.94% to 38.11%, keeping the county in the 30%
Changes in	to 40% allocation range that existed prior to the pandemic.
Sector	<ul> <li><u>Federal Agencies</u> The allocation to agencies, excluding supranationals and mortgage securities, decreased by 2.11% over the period.</li> </ul>
Allocation	• Supranational Agencies Allocation to supranationals increased by 1.03%, which reverses the downward trend from previous quarters.
Allocation	<u>Corporate Notes</u> The allocation to corporate notes decreased very slightly over the quarter by 0.01%.
	<u>Commercial Paper</u> Commercial paper decreased over the period from 10.06% to 9.80% of the portfolio.
	Washington State LCID. The State LCID source significant increase of 2,020/ during the guarter, adding more liquidity to the partfalia

- <u>Washington State LGIP</u> The State LGIP saw a significant increase of 3.03% during the quarter, adding more liquidity to the portfolio.
- **<u>Repurchase Agreements</u>** The portfolio's allocation to repurchase agreements decreased from 3.03% to 2.25% of the portfolio.



	December 31, 2021	March 31, 2022	June 30, 2022	September 30, 2022	December 31, 2022
U.S. Treasury	29.83%	28.07%	33.87%	38.94%	38.11%
Federal Agencies	12.98%	16.02%	22.28%	21.35%	19.24%
Agency Mortgages	0.02%	0.02%	0.02%	0.02%	0.02%
Supranational Agencies	33.35%	28.05%	23.89%	20.34%	21.37%
Commercial Paper	7.82%	12.86%	12.11%	10.06%	9.80%
Corporate Notes	3.06%	3.11%	2.60%	1.81%	1.80%
Repurchase Agreements	3.30%	2.09%	2.44%	3.03%	2.25%
Washington State LGIP	9.55%	9.56%	2.71%	4.28%	7.31%
Cash and Equivalents	0.08%	0.22%	0.08%	0.19%	0.10%



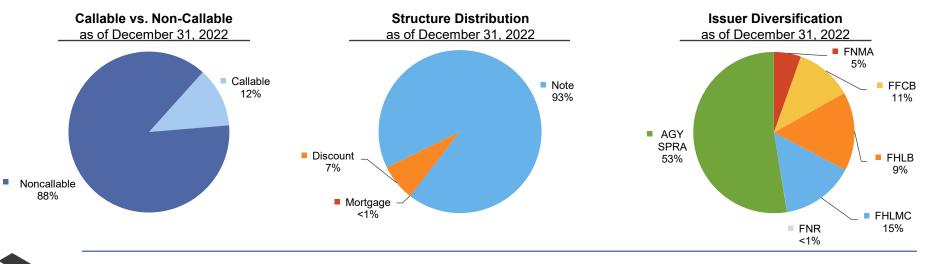
Торіс	Observations	
Observations	<ul> <li>inversion that has deepened further since last quarter. Yields on the 2- and 15 bps (0.15%), respectively. However, the front end of the curve its third quarter level.</li> <li>Approximately 36% of all Treasury holdings have remaining maturities</li> <li>The weighted average maturity (WAM) of the County's Treasury alloca security purchases within the 12-18 months maturity bucket and the 48</li> <li>The chart on the left below displays the current maturity distribution of the current shape of the Treasury yield curve to the curve last quarter,</li> <li>The County's Treasury holdings favor short to intermediate-term security</li> </ul>	close out 2022, high inflation, and recessionary fears, we observe a yield curve year and 10-year treasuries rose slightly through the quarter by 5 bps (0.05%) saw the largest jump. The 3-month treasury rose 110 bps (1.10%) to 4.34% from of one year or less. tion increased over the quarter from 512 days to 516 days as a result of new 3-60 months maturity bucket. the County's allocations to U.S. Treasuries while the chart on the right compares
	Curve. U.S. Treasury Maturity Distribution as of December 31, 2022	U.S. Treasury Yield Curve



\*Percentages may not total to 100% due to rounding.

#### **II. Sector Allocation – Federal Agencies**

Торіс	Observations		
<b>Structure</b> (as % of Federal Agency Allocations)		12.0% • Discount Notes	03.0% 7.0% 0.1%
<b>Diversification</b> (as % of Federal Agency Allocations)	<ul><li>Freddie Mac (FHLMC)</li><li>Federal Home Loan Bank (FHLB)***</li></ul>	· · · · ·	5.4% 0.1%
Conclusions	<ul> <li>The County's federal agency holdings continue to be well diversified by issuer. All issuer allocations fall within the issuer guidelines and security structures in the County's Investment Policy (max per agency issuer 35%).</li> <li>The percentage of the portfolio invested in federal agencies, excluding supranationals and mortgage securities, decreased by 2.11% in quarter from 21.35% to 19.24%. The portion of callable federal agency securities increased slightly from 11.9% to 12.0% this quarter.</li> <li>All supranational agency holdings are below the 35% issuer limit and represent approximately 21% of the entire portfolio.</li> <li>The County Pool's only allocation to agency mortgages is in Fannie Mae, totaling approximately 0.02% of the total portfolio.</li> </ul>		decreased by 2.11% in the o 12.0% this quarter. portfolio.

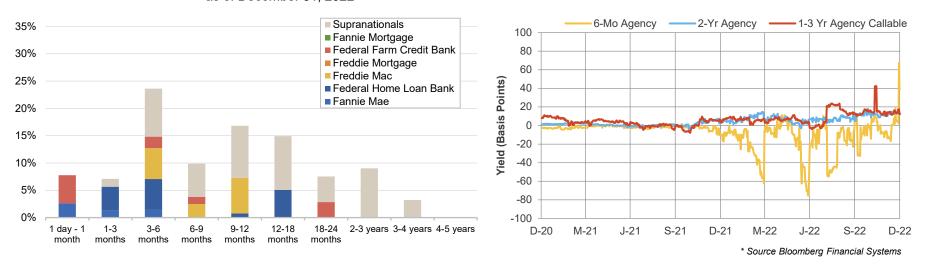


\*All calculations above are based on total federal agency exposure, not overall Portfolio. \*\*Percentages may not total to 100% due to rounding. \*\*\*Includes discount notes

Торіс	Observations
Maturity Distribution	<ul> <li>The County's federal agency maturity distribution falls within the limits set forth by the Investment Policy Statement.</li> <li>Over the quarter, the weighted average maturity (WAM) of the County's federal agency holdings, including supranationals, decreased from 368 days on September 30<sup>th</sup> to 340 days as of December 31<sup>st</sup>.</li> </ul>
	<ul> <li>The portfolio decreased its allocation to federal agencies and increased its allocation supranational agencies.</li> <li>Federal agencies remain unattractive as the trend in weaker liquidity (bid/ask spreads) has offset any yield pick-up relative to similar-maturity U.S. Treasuries.</li> <li>2-year federal agency spread widened slightly through the quarter, with the spread ending at 13 bps (0.13%) as of December 31<sup>st</sup>.</li> </ul>

#### Federal Agency Maturity Distribution by Name as of December 31, 2022

#### Federal Agency Yield Spreads to Treasuries Past 24 Months



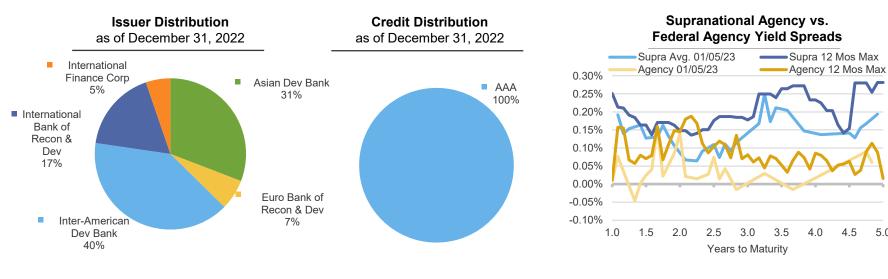
· Agency Mortgage maturities are calculated as average life. Average life data taken from Bloomberg Financial Markets

· Callable securities are shown to their next call date.

• All other Agency maturities are calculated as days to maturity.

## **II. Sector Allocation – Supranational Agencies**

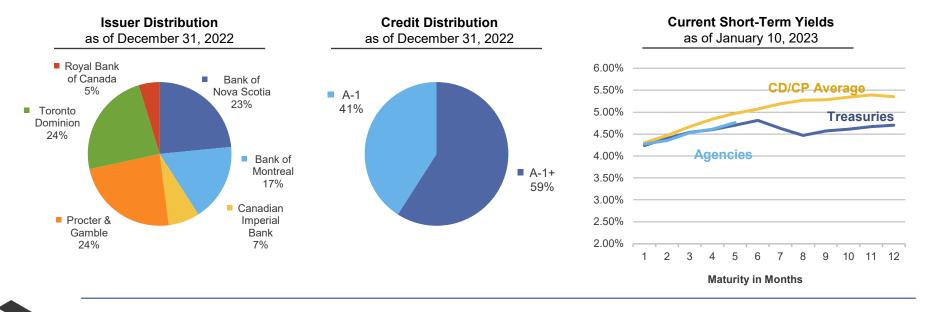
Торіс	Observations
Credit Distribution	<ul> <li>Based on the holdings as of September 30<sup>th</sup>, no supranational securities matured through the fourth quarter while few were added.</li> <li>The County maintained its exposure to five supranational issuers, but increased allocation to the sector by 1.03% while there were limited</li> </ul>
	<ul> <li>opportunities for new entry.</li> <li>The U.S. remains the largest country from a shareholder perspective for all five supranational issuers (co-largest with Japan for the Asian Development Bank), meaning the U.S. has the largest decision-making power, and these securities are directly supported by the U.S.</li> </ul>
	<ul> <li>government. However, over the quarter sector activity was negatively affected by the trend of weaker liquidity levels.</li> <li>By continuing to invest in this sector, the County is diversifying the portfolio and adding to its high credit quality with AAA supranationals, while also capturing additional yield over federal agency and treasury securities further out on the curve.</li> </ul>
	<ul> <li>The portfolio's allocation to supranational agencies is relatively balanced across maturities. However, allocation to supranationals with maturities greater than 1 year decreased over the quarter from 67.4% to 50.9%.</li> </ul>
Spread to Agency Rates	<ul> <li>The chart on the right shows the spread between supranational agencies and federal agency securities.</li> <li>Spreads compared to Treasuries and agencies continue to remain range-bound, although the sector continues to present a reasonable incremental yield to other government securities if new issues can be accessed.</li> </ul>



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## **II. Sector Allocation – Commercial Paper**

Торіс	Observations
Issuer Diversification	• The County's allocation to commercial paper decreased by 0.26% over the quarter, ending the period at 9.80% of the total portfolio.
	<ul> <li>The portfolio holds commercial paper from Toronto-Dominion Bank, the Royal Bank of Canada, Canadian Imperial Bank, Bank of Nova Scotia Bank of Montreal, and Procter &amp; Gamble.</li> </ul>
	<ul> <li>Due to the Fed's continuous series of aggressive rate hikes throughout the year, credit spreads widened, and the short-term credit curve remains steep.</li> </ul>
	<ul> <li>Commercial paper continues to provide incremental returns while allowing the County to tap into a broader universe of issuers compared to the alternative of U.S. T-Bills and federal agency discount notes.</li> </ul>
Credit Distribution	<ul> <li>With the increased exposure to the Bank of Nova Scotia's A-1 rated commercial paper and decreased allocation to the A-1+ rated commercial paper of the Royal Bank of Canada, the overall credit quality of commercial paper in the portfolio has decreased slightly.</li> </ul>
Conclusions	<ul> <li>Commercial paper spreads are elevated and attractive, particularly on maturities near eleven months which have heightened value and a steeper curve.</li> </ul>
	<ul> <li>From an overall portfolio duration perspective, utilizing short term commercial paper helps the County to offset the purchasing of longer-term securities. These commercial paper investments have historically offered greater yields than other short term treasury securities and overnight investments.</li> </ul>

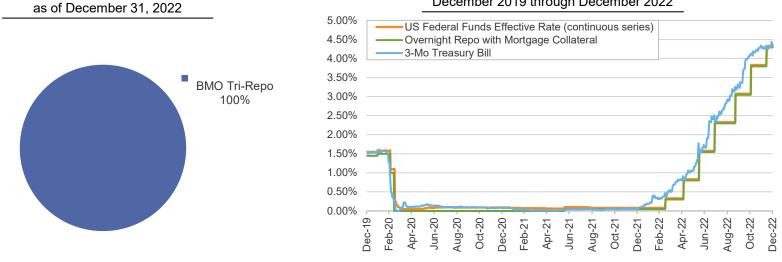


Торіс	Observation	IS					
Maturity Distribution	<ul> <li>The County's allocation to corporate notes remained unchanged at approximately 1.80% of the portfolio. To end the period, the Pool's corporate notes holdings were from high quality issuers, with 62% of it's corporate notes carrying a rating of AA+ by S&amp;P.</li> <li>Callable corporate notes made up 47% of the County's corporate sleeve, with all call dates being 1-3 months before maturity.</li> <li>The weighted average maturity of the corporate note portion of the portfolio is 1.16 years.</li> <li>The graph on the right below shows the spread for financial corporates and industrial corporates when compared to similar-maturity Treasuring investment grade corporate bond spreads closed the fourth quarter in a similar position as the third quarter of 2022. Financials, which make a large portion of the County's corporate holdings, closed the quarter wider than industrials.</li> <li>Investment grade corporates finished the quarter modestly tighter than where they began after setting multi-year wides in October, underscord historic levels of volatility experienced through the year. Reversing the trend of the prior nine months, lower-quality credit saw stronger performance.</li> </ul>						
Credit & Issuer Distribution	S&P Short	S&P Long	Moody's Short	Moody's Long	% of Corporate Holdings	% of Portfolio	Corporate/Treasury Yield Spreads December 2019 through December 2022 (in basis points)
Apple Inc.	A-1+	AA+	P-1	Aaa	62.4%	1.1%	450 450
Microsoft Corp.	A-1+	AAA	P-1	Aaa	4.2%	0.1%	400
Canadian Imperial Ban	ık A-1	A+	P-1	Aa2	10.7%	0.2%	
US Bank	A-1+	AA-	P-1	A1	22.7%	0.4%	350
							300
							250
							200
							150
							100
							50
							0
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#### II. Sector Allocation – Repurchase Agreements

**Issuer/Credit Distribution** 

Торіс	Observations
Issuer Diversification	<ul> <li>The County decreased its tri-party repurchase agreement allocation over the quarter by 0.78%. This sector now holds 2.25% allocation in the portfolio compared to the 3.03% allocation at the end of the third quarter.</li> <li>At the end of the quarter, the portfolio utilized one repurchase agreement provider, BMO Capital Markets, with an amount of \$193 million.</li> <li>This allocation falls within the permitted investment guidelines of 25% per issuer and 100% maximum to the sector.</li> </ul>
Credit Distribution	<ul> <li>Standard &amp; Poor's rates BMO's short-term issuer credit as A-1.</li> <li>While this issuer has a high-quality rating from S&amp;P, the ultimate quality of the repurchase agreement depends on the underlying collateral.</li> </ul>
Conclusions	• As of December 31, 2022, the repurchase agreement sector's weighted-average yield increased compared to the previous quarter. Yields for overnight repurchase agreements have risen as the Fed funds target rate increases on a continuous basis with rate hikes.



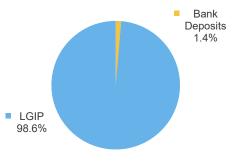
#### Short-Term Yields December 2019 through December 2022

#### **II. Sector Allocation – LGIPs & Cash Equivalents**

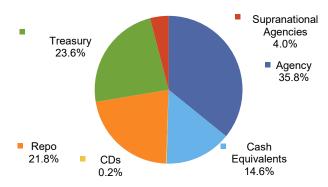
	Underlying Investments	Rating (Short-Term: S&P/ Moody's/Fitch)	Observations			
Washington State LGIP	<ul> <li>U.S. Treasuries 23.6%</li> <li>Federal Agencies 35.8%</li> <li>Supranational Agencies 4.0%</li> <li>Repurchase Agreements 21.8%</li> <li>Certificates of Deposit 0.2%</li> <li>Cash Equivalents 14.6%</li> <li>As of September 30, 2022</li> </ul>	• N/A	<ul> <li>The County currently has allocated about \$627 million to the Washington State LGIP, an increase from last quarter's \$363 billion figure.</li> <li>The County's allocation to the State LGIP continues to serve as the primary source of overnight liquidity for the portfolio.</li> <li>During the quarter, the State LGIP increased its allocation to Federal Agencies (+2.7%), Cash (+7.0%), and Supranationals (+2.6%) while decreasing allocation to U.S. Treasuries significantly (-12.2%). Allocation to Repurchase Agreements and Certificates of Deposit remained unchanged.</li> </ul>			
Cash Equivalents	<ul> <li>State LGIP</li> <li>U.S. Bank</li> <li>Key Bank</li> <li>Bank of America</li> <li>0.01%</li> </ul>	<ul> <li><u>U.S. Bank:</u> A-1+/P-1/F1+</li> <li><u>Key Bank:</u> A-2/P-2/F1</li> <li><u>Bank of America:</u> A-1/P-1/F1</li> </ul>	<ul> <li>The County's deposit accounts at U.S. Bank, Key Bank, and Bank of America are FDIC-insured up to FDIC limits and are collateralized by the Public Deposit Protection Commission.</li> <li>The portfolio's cash holdings decreased over the quarter, from 0.19% to 0.10% of the total portfolio.</li> </ul>			

#### **Cash Equivalents Distribution**

as of December 31, 2022



#### Washington State LGIP Sector Distribution as of December 31, 2022



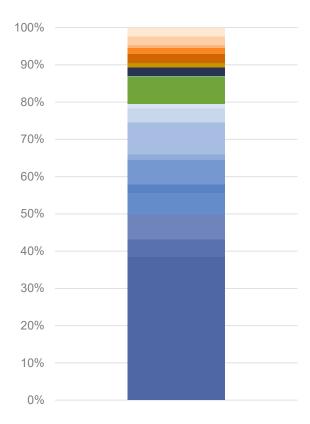
\*All calculations above are based on total cash equivalents exposure, not overall Portfolio. \*\*Percentages may not total to 100% due to rounding.

#### **III. Issuer Concentration**

#### **Issuer Exposure**

- The County maintains a well-diversified portfolio by issuer, as shown in the tables and graph below.
- More than 78% of the portfolio is allocated directly to U.S. government guaranteed or government supported entities.
- Of the remaining 22% of the portfolio, about 10% is allocated to very short-term or overnight investment vehicles, including the State LGIP, repurchase agreements, and bank deposits. The remaining 12% is allocated to credit issuers, including commercial paper and corporate notes.

U.S. Treasury (100% Limit)	38.11%
Agency Issuers	Percentage (35% Limit)
Asian Dev Bank Inter-American Dev Bk Intn'l Bk of Recon & Dev FFCB FHLMC FNMA Euro Bk of Recon & Dev FHLB International Finance Corp	6.59% 8.54% 3.72% 4.65% 5.96% 2.23% 1.40% 6.42% 1.12%
Washington State LGIP (25% Limit)	7.31%
Overnight Deposits	Percentage (No Limit)
US Bank Bank of America Key Bank	0.093% 0.001% 0.007%
Repo Issuers	Percentage (25% Limit)
BMO Capital Markets Corp	2.25%



Corporate Issuers	Percentage (5% Limit)
Apple Inc	1.12%
US Bank	0.41%
Canadian Imperial Bank	0.19%
Microsoft Corp	0.08%

CP Issuers	Percentage (5% Limit)
Toronto Dominion	2.32%
Royal Bank of Canada	0.46%
Bank of Nova Scotia	2.30%
Canadian Imperial Bank	0.69%
Procter & Gamble	2.31%
Bank of Montreal	1.72%

Percentages may not add to 100% due to rounding.

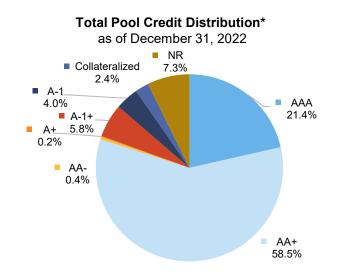
\* For the purposes of totaling issuer concentration, issuers are aggregated across all sector types.

It is noted however that issuers across sector types may maintain separately rated issuer credits.

## **IV. Overall Credit Quality**

#### **County Investment Pool Credit Analysis**

- The County Pool's overall average credit position remains very strong and is
  primarily concentrated in U.S. government guaranteed and/or supported
  securities which maintain a long-term credit rating of AA+ by Standard &
  Poor's.
- The County also continued to hold supranational agencies, which are rated AAA.
- The County largely maintained its credit exposure through commercial paper and corporate notes over the quarter, ending at 11.60% of the portfolio, compared to 11.86% last quarter.
  - Commercial paper accounts for 9.80% of the entire portfolio, while corporate notes account for 1.80%.
- Corporate note allocations held throughout the quarter have ratings of AA- or higher.
  - Commercial paper allocations are all rated A-1/P-1 or higher.
- The 7.3% NR allocation represents the County's investment in the Washington State LGIP, which is not currently rated by any ratings agency.
- The County's investment in the Washington LGIP includes indirect corporate exposure:
  - Through the LGIP, 1.60% of the County's Pool is allocated indirectly to corporate securities (repurchase agreements and certificates of deposit).

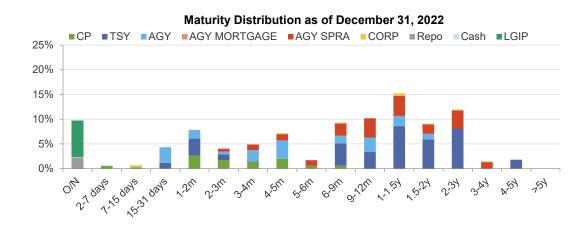


#### Corporate/CP Issuer Ratings Table as of December 31, 2022

Issuer Distribution	Sectors Invested	S&P Short*	S&P Long*	Moody's Short*	Moody's Long*
Apple Inc	Corp	A-1+	AA+	P-1	Aaa
Bank of Nova Scotia	CP	A-1	A+	P-1	Aa2
Canadian Imperial Bank	Corp/CP	A-1	A+	P-1	Aa2
Royal Bank of Canada	CP	A-1+	AA-	P-1	Aa1
Toronto-Dominion Bank	CP	A-1+	AA-	P-1	Aa2
US Bank	Corp	A-1+	AA-	P-1	A1
Procter & Gamble	CP	A-1+	AA-	P-1	Aa2
Bank of Montreal	CP	A-1	A+	P-1	Aa2
Microsoft Corp	Corp	A-1+	AAA	P-1	Aaa

## **V. Maturity Distribution**

Maturity Distribution	Observations
Weighted Average Maturity ("WAM")	<ul> <li>The County continues to invest across its permitted maturity range, as seen in the chart below.</li> <li>About 61% of the portfolio holdings are scheduled to mature within the next twelve months, an increase from the previous quarter-end and well above the 40% mandated by the investment policy.</li> <li>It appears the County's maturity strategy over the past quarter included: <ul> <li>Continuing to allow previously purchased, longer-dated investments to naturally shorten in maturity and roll-down the yield curve with few purchases beyond a 1-year maturity.</li> <li>Targeting the following spaces: <ul> <li>maintaining allocation to Commercial Paper to take advantage of the short-term credit curve while increasing the overall credit quality of CP in the portfolio.</li> <li>Increasing allocation to liquid investment vehicles.</li> </ul> </li> <li>The WAM of the portfolio ended the quarter at 376 days, shorter than the 396 days WAM from the second quarter.</li> <li>The change in portfolio WAM can primarily be attributed to the increased allocation to overnight liquidity and the lower contribution of federal and supranational agencies.</li> </ul></li></ul>
Liquidity	<ul> <li>The County has increased allocation in the portfolio to the combination of the Washington State LGIP, bank deposits, and repurchase agreements (overnight liquidity), from 8% in the previous quarter to 10% this quarter. Another 5% of the portfolio's holdings are scheduled to mature within the next thirty-one days.</li> </ul>



Contribution to Maturity								
Sector	12/31/2022	9/30/2022						
Supranational Agencies	98.91	108.59						
Cash	0.00	0.00						
Corporate Notes	7.66	6.94						
Commercial Paper	9.09	8.20						
Federal Agencies	63.04	72.78						
The Washington State LGIP	0.07	0.04						
Agency Mortgages	0.59	0.67						
Repurchase Agreements	0.02	0.03						
US Treasuries	196.50	199.54						
Maturity:	376 days	396 days						

Agency Mortgage maturities are reported as average life. Average life data taken from Bloomberg Financial Markets. Callable securities shown to their call date. All other security maturities are reported as days to maturity. WA LGIP is considered to have a one -day maturity.

## **V. Duration Distribution**

Duration Distribution	Observations
Definition	<ul> <li>Duration is a measure of the sensitivity of the value of principal of an investment to a change in interest rates. The value of a portfolio with a higher duration is more sensitive to interest rate increases and decreases.</li> </ul>
	<ul> <li>Duration is often quoted in years and is commonly used as a measure of the market risk of a security or portfolio. Duration can be derived in a number of ways; please refer to the notes at the bottom of this page for details.</li> </ul>
Duration	• The portfolio's weighted average duration is within the IPS guidelines (no greater than 1.5 years).
	<ul> <li>As of December 31, the duration of the County Investment Pool was 0.98 years, a decrease from the previous quarter which ended at 1.05 years.</li> </ul>
	<ul> <li>The shortened portfolio duration was driven by increase in overnight liquidity and the rolling down of securities.</li> </ul>
	<ul> <li>The portfolio is measured against a blended benchmark consisting of 40% ICE Bank of America Merrill Lynch 3-Month Treasury Index and 60% ICE Bank of America Merrill Lynch 1-3 Year Treasury &amp; Agency Index.</li> </ul>
	<ul> <li>The overall portfolio duration decreased by 0.07 years, and the benchmark duration decreased by 0.01 years over the quarter. The portfolio's duration decreased from 88% to 83% of the benchmark duration for the period ending December 31.</li> </ul>

25%	■CP	TSY	AGY	AGY Mortga	age CORP	Repo	Cash	LGIP		
20%										
15%										
10%										
5%								Ι.		
0% + • • • • • • • • • • • • • • • • • •	<b>.</b>						~ ~	64 60		
011 684	1.15 days	0845	, <sup>2</sup> , <sup>2</sup> ,2,25	" 3-AT A-5T	ben bon or	J., ', ', ', ', ', ', ', ', ', ', ', ', ',	1,500	1,2, 3,4)	A-57 7	ςΟ

Duration Distribution as of December 31, 2022

Contribution to Duration		
Sector	12/31/22	9/30/22
Supranational Agencies	0.26	0.29
Cash	0.00	0.00
Corporate Notes	0.02	0.02
Commercial Paper	0.02	0.02
Federal Agencies	0.17	0.19
The Washington State LGIP	0.00	0.00
Agency Mortgages	0.00	0.00
Repurchase Agreements	0.00	0.00
US Treasuries	0.51	0.53
Duration:	0.98 years	1.05 years

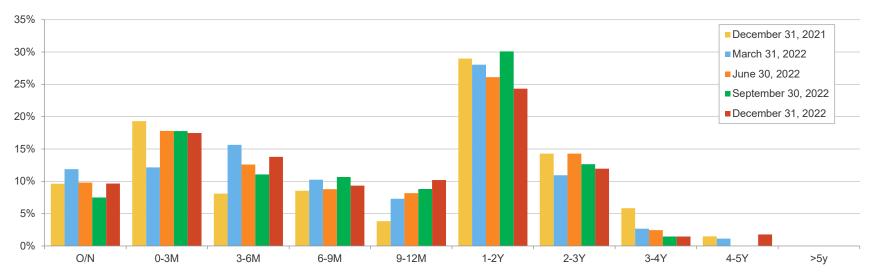
Agency Mortgage durations are shown as effective duration taken from Bloomberg Financial Markets.

Duration for Federal Agency Discount Notes and Repurchase Agreements are calculated as days to maturity.

WA LGIP and bank deposits considered to have a one day duration.

All other security durations are calculated as effective duration as given by Bloomberg Financial Markets.

Changes in Portfolio Maturity Distribution	<ul> <li>When viewing the current maturity distribution (red bars) in relation to previous periods, a few primary observations are noted:         <ul> <li>It appears the County targeted a significant expansion in the overnight maturity bucket and the 3-6 month maturity bucket.</li> <li>The portfolio is diverse across maturity buckets under 1 year.</li> </ul> </li> </ul>
	<ul> <li>Compared to the third quarter, the yield curve is steeper in the 0-2 year space. Therefore, the relative value in the 0-2 year space is higher than 3-5 year space.</li> <li>Locking in the higher yields on the short end of the curve and finding relative value within sectors allows the portfolio to benefit from incremental income in a volatile interest rate environment.</li> </ul>



#### Maturity Distribution December 31, 2021 to December 31, 2022

Agency Mortgage maturities are reported as average life. Average life data taken from Bloomberg Financial Markets Callable securities shown to their call date. All other security maturities are calculated as days to maturity. WA LGIP is considered to have a one day maturity.

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