

# King County Investment Pool

## Portfolio Review

Quarter Ended  
December 31, 2021  
717.232.2723

**[pfmam.com](http://pfmam.com)**

*PFM Asset Management LLC*

*NOT FDIC INSURED : NO BANK GUARANTEE : MAY LOSE VALUE*

# Executive Summary

<b>Purpose, Scope and Approach</b>	<ul style="list-style-type: none"><li>• PFM Asset Management LLC (“PFM”) prepared this report to update our ongoing analysis and to address any Investment Pool developments since our September 2021 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, 2021, with reference to holdings in past periods.</li><li>• The review encompasses all current investments in the County’s Investment Pool.</li></ul>
<b>Investment Program and Portfolio Review</b>	<ul style="list-style-type: none"><li>• PFM 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>
<b>Market Recap</b>	<ul style="list-style-type: none"><li>• U.S. economic conditions are characterized by:<ul style="list-style-type: none"><li>• Upsurge in COVID-19 caseloads as two high infectious COVID variants circulate simultaneously</li><li>• Stickier-than-expected inflation as pent-up consumer demand clashes with labor shortage and continued global supply chain disruptions</li><li>• Tightening of the accommodative monetary policy as the Fed continues down a more hawkish path in light of the improving labor market conditions and persistent inflationary pressures</li><li>• Uneven labor market recovery marked by falling unemployment rate, rising wages, and stagnating labor participation</li><li>• Consumer confidence ebbed by reemerging COVID concerns and increasing cost of goods</li></ul></li></ul>
<b>Observations</b>	<ul style="list-style-type: none"><li>• The portfolio is of very high credit quality. The majority of securities (89%) 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 103% of the benchmark’s duration.</li><li>• The County Pool appears to provide adequate liquidity, with 13% (or \$1.8 billion) invested in a combination of the State LGIP, bank deposits, and repurchase agreements (overnight) and 30% of the portfolio invested in U.S. Treasuries.</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.

Type	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%	100% for repurchase agreements with the Federal Reserve Bank of New York  25% maximum exposure to any one repo counterparty.  For the purposes of aggregating issuers across sectors, overnight repo counterparties are not included.	The counterparty must have: 1. 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 2. A minimum asset and capital size of \$5 billion in assets and \$175 million in capital	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.	1. 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 2. A minimum asset and capital size of \$5 billion in assets and \$175 million in capital	Overnight only
Reverse Repurchase Agreement	20%	5% per investment dealer	1. 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 2. A minimum asset and capital size of \$5 billion in assets and \$175 million in capital	6 months or less
Local Government Investment Pool (“LGIP”)	25%	State of Washington LGIP	N/A	N/A

# Investment Policy Summary (cont'd)

Type	Maximum Portfolio Allocation	Issuer Restrictions	Credit Ratings	Maturity Restrictions
<b>Bankers' Acceptances</b>	25%  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
<b>Certificates of Deposit</b>	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
<b>Commercial Paper</b>	25% of total market value when combined with Corporate Notes.  When combined with Banker's Acceptance, Certificates of Deposit, Term Repos (greater than overnight) and Corporate Notes not to exceed 50% of the Pool assets.	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
<b>General Obligation Municipal Bonds</b>	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)

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

## 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.

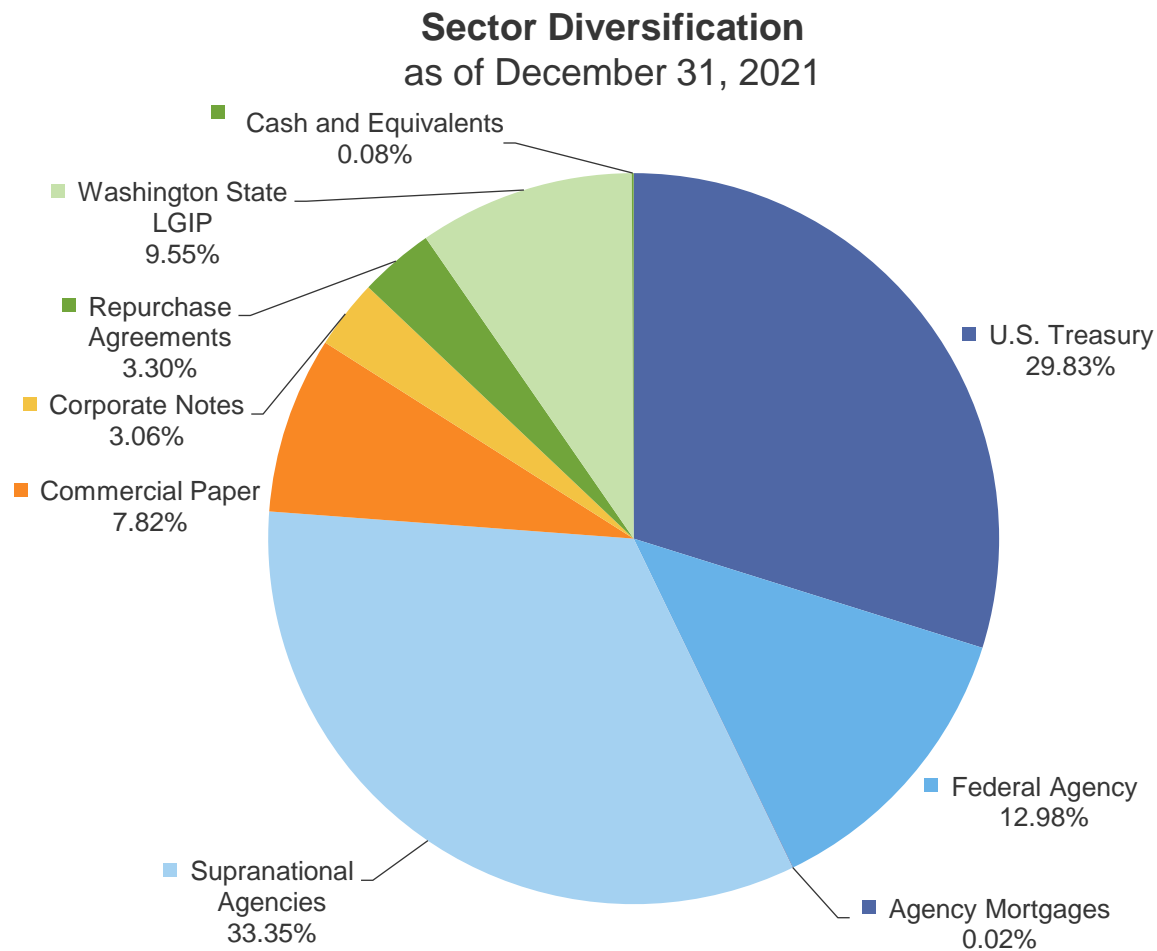
# Investment Policy Review

Topic	Observations
<b>Sector Allocation</b>	<ul style="list-style-type: none"> <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, 2021, was \$8.7 billion, an increase of \$0.4 billion from last quarter.</li> <li>The County's Investment Pool decreased percentage allocations to the Washington State LGIP (-9.87%), Federal Agencies (-2.46%), Cash and Equivalents (-0.15%), and U.S. Treasuries (-0.09%).</li> <li>Over the quarter, allocations increased in the following sectors: Supranational Agencies (+9.92%), Repurchase Agreements (1.47%), Commercial Paper (+0.75%), and Corporate Notes (0.43%).</li> <li>All sectors remain within applicable policy limits.</li> </ul>
<b>Credit Quality</b>	<ul style="list-style-type: none"> <li>Approximately 76% of the County pool's assets are directly guaranteed or supported by the U.S. government and roughly 8% of the assets are indirectly guaranteed via a portion of the State LGIP allocation and its underlying investments. Considering the County pool's holdings of repurchase agreements and bank accounts collateralized by government securities, the overall government-related credit quality is about 87%.</li> <li>Combined corporate allocations (both commercial paper and corporate notes) increased slightly to 10.88% of the portfolio from 9.70% 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>
<b>Maturity Distribution</b>	<ul style="list-style-type: none"> <li>All maturities fall within the limits set forth in the County's Investment Policy.</li> <li>Approximately 49% 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	2,602,367,800	29.83%	✓	3.25 years	✓
Supranational Agencies	2,909,378,235	33.35%	✓	4.30 years	✓
Corporate Notes	266,969,464	3.06%	✓	4.11 years	✓
Federal Agency	1,132,820,680	12.98%	✓	3.27 years	✓
Washington State LGIP	832,831,553	9.55%	✓	1 day	✓
Repurchase Agreement	288,000,000	3.30%	✓	1 day	✓
Commercial Paper	682,572,879	7.82%	✓	237 days	✓
Cash and Equivalents	7,149,559	0.08%	✓	1 day	✓
Agency Mortgages	1,999,404	0.02%	✓	3.00 years (WAL)	✓
<b>TOTAL</b>	<b>8,724,089,574</b>	<b>100.00%</b>			

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

# Sector Allocation



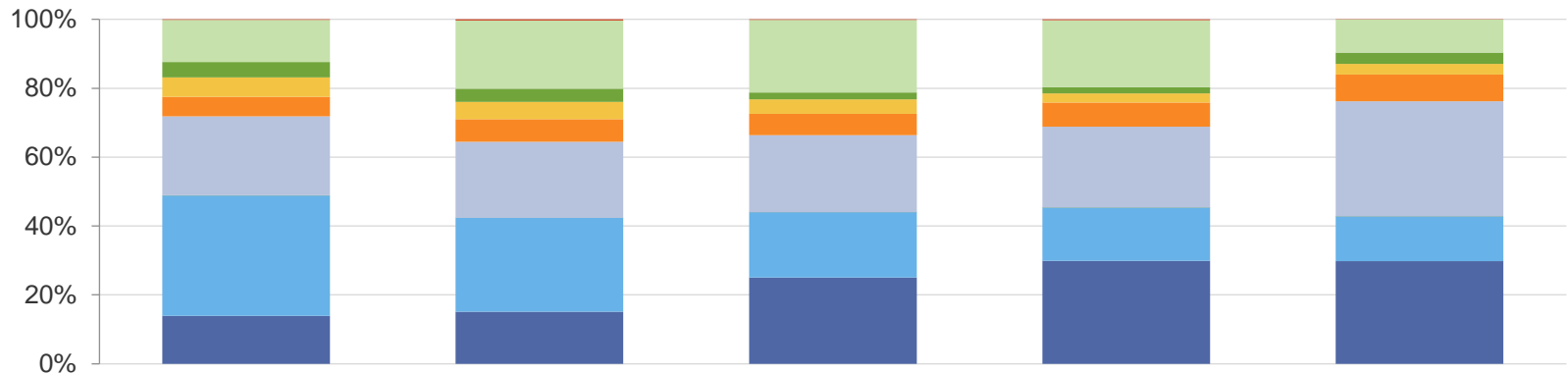
\*Percentages may not total to 100% due to rounding.



# Changes In Portfolio Sector Allocation over the Past 12 Months

## Changes in Sector Allocation

- The portfolio increased exposure to Supranational Agencies (+9.92%), Repurchase Agreements (1.47%), Commercial Paper (+0.75%), and Corporate Notes (0.43%), while decreasing allocations to Washington State LGIP (-9.87%), Federal Agencies (-2.46%), Cash and Equivalents (-0.15%), and U.S. Treasuries (-0.09%).
- **U.S. Treasuries** During the fourth quarter, exposure to U.S. Treasuries reduced modestly from 29.92% to 29.83%. It continues to remain below the 30% to 40% allocation range that existed prior to the pandemic.
- **Federal Agencies** Federal agency allocations, excluding supranationals and mortgage securities, edged lower by 2.46% over the period.
- **Corporate Notes** The allocation to corporate notes increased slightly over the quarter to 0.43%, ending the two-year-long trend of decreases.
- **Commercial Paper** Commercial paper increased over the period from 7.07% to 7.82% of the portfolio.
- **Washington State LGIP** Balances invested in the State LGIP decreased from 19.41% of the portfolio to 9.55%
- **Repurchase Agreements** The portfolio's allocation to repurchase agreements increased from 1.84% to 3.30% of the portfolio.



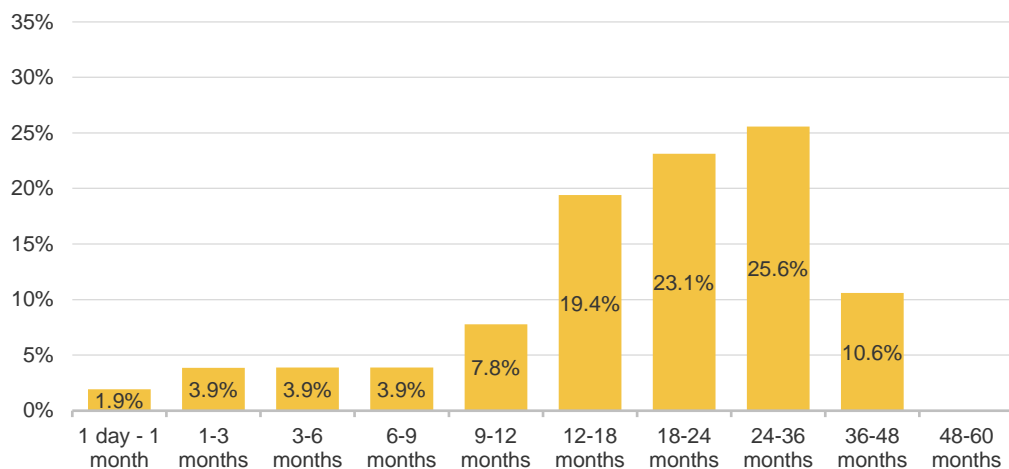
	December 31, 2020	March 31, 2021	June 30, 2021	September 30, 2021	December 31, 2021
U.S. Treasury	13.95%	15.06%	25.07%	29.92%	29.83%
Federal Agencies	34.93%	27.29%	18.92%	15.45%	12.98%
Agency Mortgages	0.03%	0.03%	0.03%	0.03%	0.02%
Supranational Agencies	22.98%	22.07%	22.34%	23.43%	33.35%
Commercial Paper	5.57%	6.58%	6.22%	7.07%	7.82%
Corporate Notes	5.65%	5.00%	4.22%	2.63%	3.06%
Repurchase Agreements	4.53%	3.81%	1.99%	1.84%	3.30%
Washington State LGIP	12.16%	19.84%	21.10%	19.41%	9.55%
Cash and Equivalents	0.19%	0.31%	0.11%	0.23%	0.08%

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

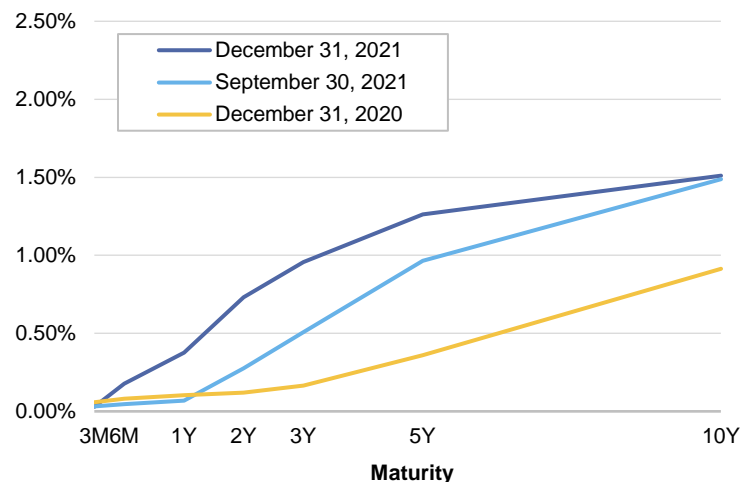
## II. Sector Allocation – U.S. Treasury Securities

Topic	Observations
Observations	<ul style="list-style-type: none"> <li>The County's balances held in U.S. Treasuries decreased slightly from 29.92% of the total portfolio to 29.83%.</li> <li>The U.S. Treasury yield curve continued to steepen, on the heels of inflation chatter, accelerated Fed monetary policy normalization, and an overdue correction to a bond rally. Short-term rates remain anchored near rock-bottom lows by current overnight target rate policy.               <ul style="list-style-type: none"> <li>The 10-year Treasury yield increased 2 basis points (0.02%), while the 2-year yield rose 45 bps (0.45%).</li> </ul> </li> <li>Less than 22% of all Treasury holdings have remaining maturities of one year or less.</li> <li>The weighted average maturity (WAM) of the County's Treasury allocation continued to decrease over the quarter from 777 days to 628 days as a result of previously held securities rolling down and there being only one new purchase made, maturing in 2.2 years.</li> <li>The chart on the left below displays the current maturity distribution of the County's allocations to U.S. Treasuries while the chart on the right compares the current shape of the Treasury yield curve to the curve last quarter, and the yield curve one year ago. The County's Treasury holdings continue to favor the longer-term securities. As the short end of the yield curve has started to take off beyond the 1-year mark, shorter-term Treasuries begin to offer some value.</li> </ul>

**U.S. Treasury Maturity Distribution**  
as of December 31, 2021



**U.S. Treasury Yield Curve**  
9/30/21 vs 12/31/21 vs 12/31/20

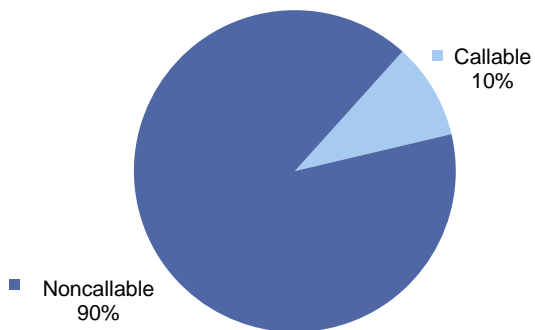


\*Percentages may not total to 100% due to rounding.

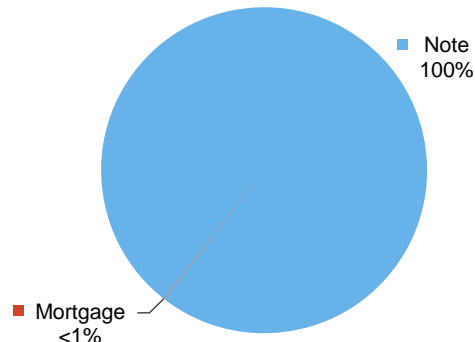
## II. Sector Allocation – Federal Agencies

Topic	Observations			
<b>Structure (as % of Federal Agency Allocations)</b>	<ul style="list-style-type: none"> <li>Non-Callable 90.4%</li> <li>Callable 9.6%</li> </ul>	<ul style="list-style-type: none"> <li>Coupon Bearing Notes 99.9%</li> <li>Agency Mortgage &lt; 0.1%</li> </ul>		
<b>Diversification (as % of Federal Agency Allocations)</b>	<ul style="list-style-type: none"> <li>Federal Farm Credit Bank (FFCB)*** 10.9%</li> <li>Freddie Mac (FHLMC) 10.4%</li> <li>Federal Home Loan Bank (FHLB)*** 1.7%</li> <li>Supranational Agencies*** 71.9%</li> </ul>	<ul style="list-style-type: none"> <li>Fannie Mae (FNMA)*** 4.9%</li> <li>Fannie Mae Mortgage-Backed (FNR) &lt; 0.1%</li> </ul>		
<b>Conclusions</b>	<ul style="list-style-type: none"> <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 -2.46% in the quarter from 15.45% to 12.98%. Within this federal agency allocation, the portion of callable securities has continued to decrease from 15.2% to 9.6% since the end of the third quarter.</li> <li>All supranational agency holdings are below the 35% issuer limit and represent approximately 33% of the entire portfolio.</li> <li>The County Pool's only allocation to agency mortgages is in Fannie Mae pools, totaling approximately 0.02% of the total portfolio.</li> </ul>			

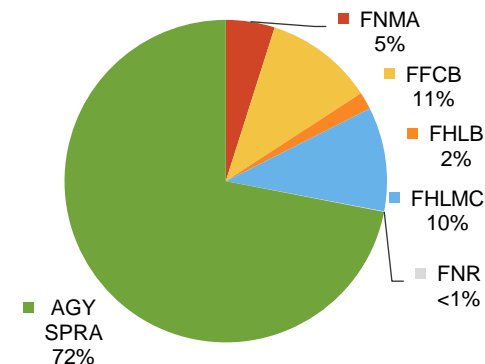
**Callable vs. Non-Callable**  
as of December 31, 2021



**Structure Distribution**  
as of December 31, 2021



**Issuer Diversification**  
as of December 31, 2021



\*All calculations above are based on total federal agency exposure, not overall Portfolio.

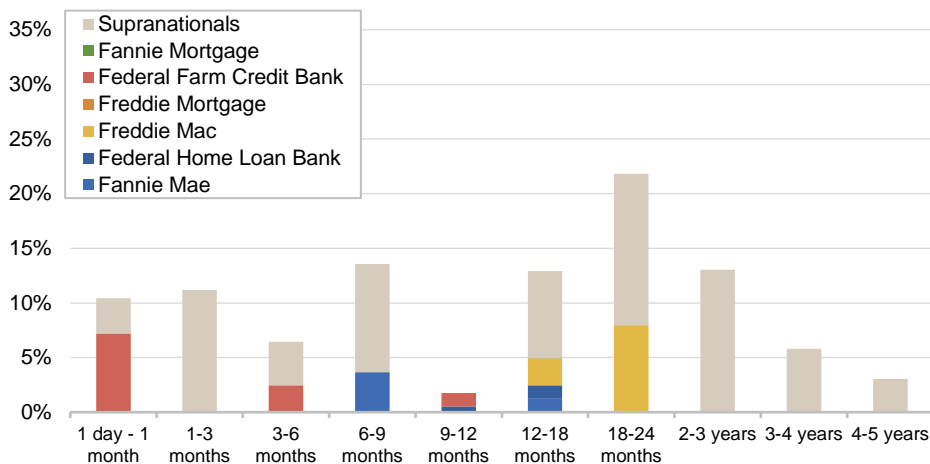
\*\*Percentages may not total to 100% due to rounding.

\*\*\*Includes discount notes

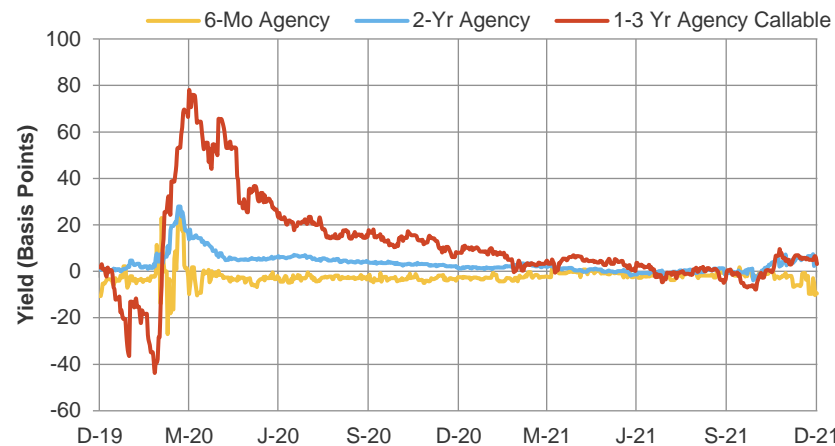
## II. Sector Allocation – Federal Agencies

Topic	Observations
<b>Maturity Distribution</b>	<ul style="list-style-type: none"> <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 579 days on September 30<sup>th</sup> to 483 days on December 31<sup>st</sup>.</li> <li>The portfolio purchased over \$762 million in supranational securities this quarter, spread across four issuers. <ul style="list-style-type: none"> <li>As expected, there were opportunities in this quarter to add to the supranational sector. New issue opportunities remained the best entry point, despite new issuance seeing reduced activity through the rest of the year as issuers close out their funding needs.</li> </ul> </li> <li>With regard to the federal agency sector, there continues to be limited room for further spread tightening from current levels. With spreads likely to remain near zero until rates are hiked, the sector offers very little pickup compared to U.S. Treasuries. <ul style="list-style-type: none"> <li>2-year federal agencies provide no value relative to U.S. Treasuries, with the spread ending the quarter at -45 bp (-0.45%).</li> </ul> </li> </ul>

**Federal Agency Maturity Distribution by Name**  
as of December 31, 2021



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



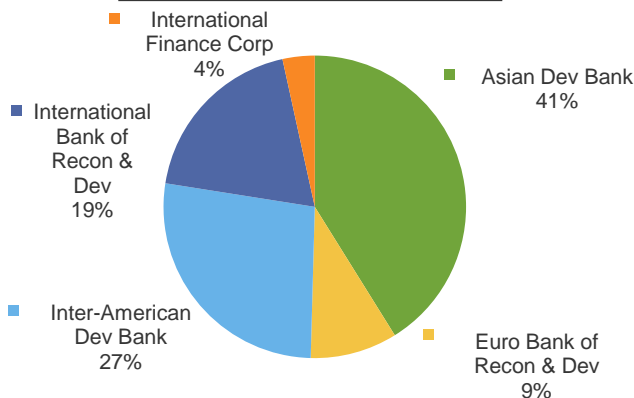
\* Source Bloomberg Financial Systems

- 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.

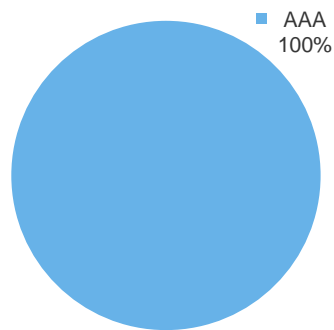
## II. Sector Allocation – Supranational Agencies

Topic	Observations
<b>Credit Distribution</b>	<ul style="list-style-type: none"> <li>Based on the holdings as of December 31<sup>st</sup>, eight supranational securities will mature over the next quarter.</li> <li>The County maintained exposure to five supranational issuers.                             <ul style="list-style-type: none"> <li>The U.S. is 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 considered to have been issued by federal instrumentalities.</li> </ul> </li> <li>By continuing to invest in this sector, the County is able to diversify the portfolio and add to its high credit quality, while also capturing additional yield over federal agency and Treasury securities.                             <ul style="list-style-type: none"> <li>The portfolio's allocation to supranational agencies is relatively balanced across maturities, with approximately 61% having a remaining maturity of over 1 year.</li> </ul> </li> </ul>
<b>Spread to Agency Rates</b>	<ul style="list-style-type: none"> <li>The chart on the right shows the spread between supranational agencies and federal agency securities.                             <ul style="list-style-type: none"> <li>Spreads compared to Treasuries and agencies remain range-bound, although the sector continues to present a reasonable alternative to other government securities if new issues can be accessed.</li> </ul> </li> </ul>

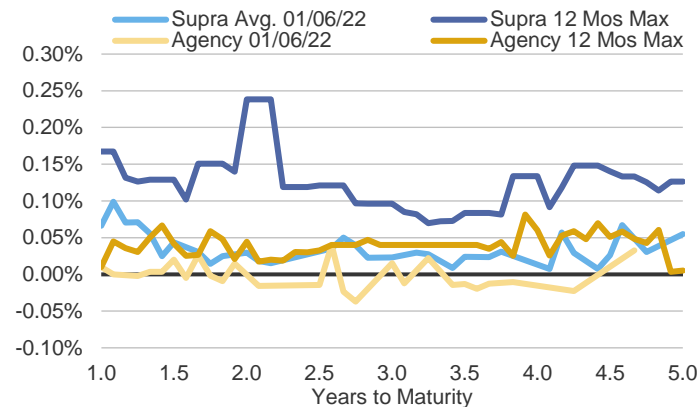
**Issuer Distribution**  
as of December 31, 2021



**Credit Distribution**  
as of December 31, 2021



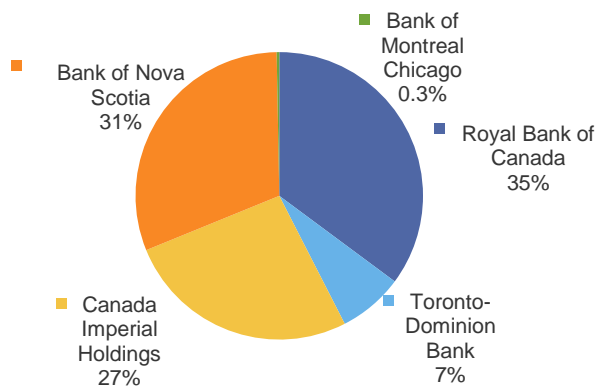
**Supranational Agency vs. Federal Agency Yield Spreads**



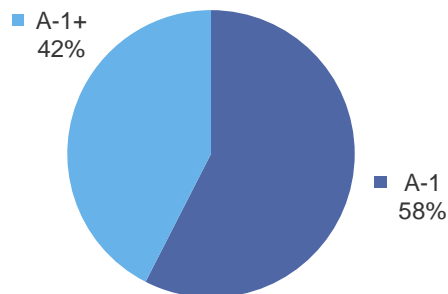
## II. Sector Allocation – Commercial Paper

Topic	Observations
<b>Issuer Diversification</b>	<ul style="list-style-type: none"> <li>The County's allocation to commercial paper increased by 0.75% over the quarter, ending the period at 7.82% of the total portfolio.</li> <li>The portfolio holds commercial paper from Toronto-Dominion Bank, the Royal Bank of Canada, Canada Imperial Bank, Bank of Nova Scotia and Bank of Montreal Chicago.</li> <li>Commercial Paper spreads have widened over the quarter, notably in the longer-term portion of the curve, offering attractive relative value to comparable-maturity Treasuries.</li> <li>With attractive spreads further out on the yield curve, 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>
<b>Credit Distribution</b>	<ul style="list-style-type: none"> <li>Standard &amp; Poor's rates the short-term credit of Royal Bank of Canada and Toronto-Dominion as AA-, and Bank of Nova Scotia, Bank of Montreal Chicago and Canada Imperial Bank as A+.</li> </ul>
<b>Conclusions</b>	<ul style="list-style-type: none"> <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 securities and overnight investments.</li> </ul>

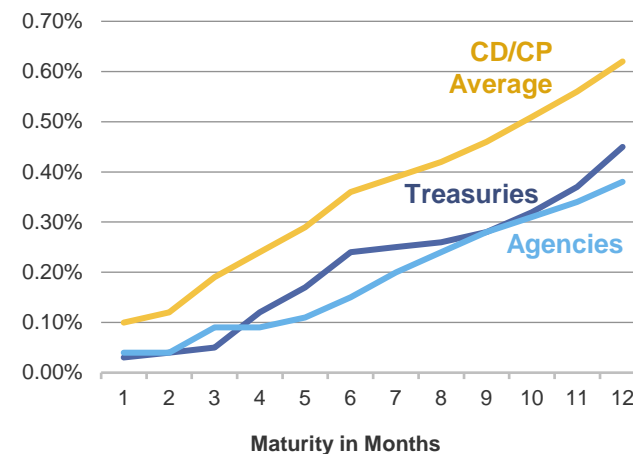
**Issuer Distribution**  
as of December 31, 2021



**Credit Distribution**  
as of December 31, 2021



**Current Short-Term Yields**  
as of December 31, 2021

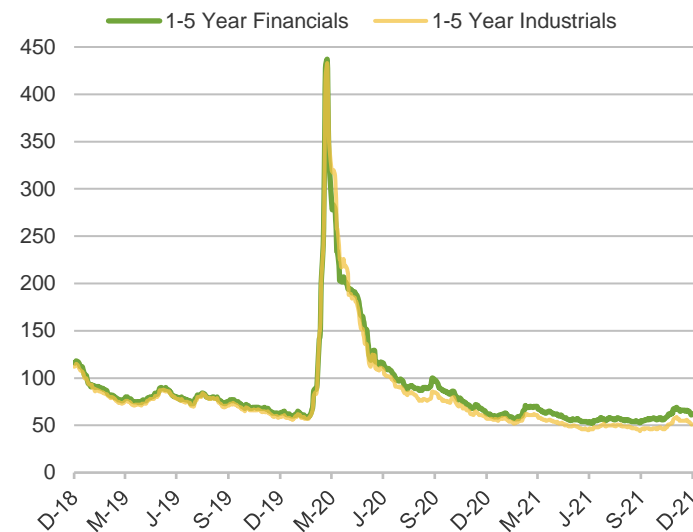


## II. Sector Allocation – Corporate Notes

Topic	Observations
<b>Maturity Distribution</b>	<ul style="list-style-type: none"> <li>The County's exposure to corporate notes increased by 0.43% over the quarter, from 2.63% to 3.06%. To end the period, the Pool's corporate note holdings were from high quality issuers, with 81% of its corporate notes carrying a rating of at least AA- by S&amp;P.               <ul style="list-style-type: none"> <li>– Callable corporate notes made up 39% of the County's corporate sleeve, with all call dates being about a month before maturity.</li> <li>– Only one corporate note matures beyond 4 years and the weighted average maturity of the corporate note portion of the portfolio is 1.17 years.</li> <li>– The graph on the right below shows the spread for financial corporates and industrial corporates when compared to similar-maturity Treasuries. Investment grade corporate bond spreads remained lower in the quarter. Financials, which make up a large portion of the County's corporate holdings, closed the quarter slightly wider than industrials.</li> <li>– Continued economic recovery, dialing back of supportive monetary policy in the near future, lower supply, and strong global demand for U.S. credit might widen spreads for the corporate sector.</li> </ul> </li> </ul>

Credit & Issuer Distribution	S&P Short	S&P Long	Moody's Short	Moody's Long	% of Corporate Holdings	% of Portfolio
Apple Inc.	A-1+	AA+	P-1	Aaa	35.9%	1.1%
Canadian Imperial Bank	A-1	A+	P-1	Aa2	6.5%	0.2%
Home Depot Inc.	A-1	A	P-1	A2	3.0%	0.1%
Honeywell International	A-1	A	P-1	A2	5.8%	0.2%
Bank of Montreal	A-1	A+	P-1	Aa2	9.5%	0.3%
Bank of Nova Scotia	A-1	A+	P-1	Aa2	8.9%	0.3%
Procter & Gamble Co	A-1+	AA-	P-1	Aa3	17.0%	0.5%
US Bank	A-1+	AA-	P-1	A1	13.3%	0.4%

**Corporate/Treasury Yield Spreads**  
December 2018 through December 2021 (in basis points)



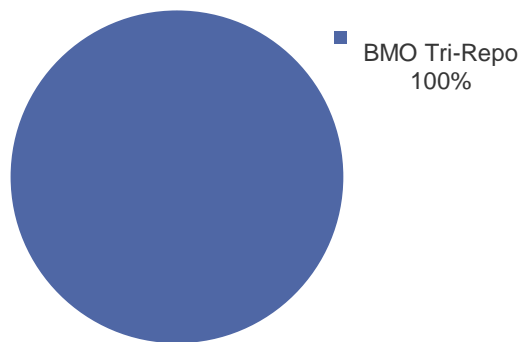
\*Source: Bloomberg Financial Systems as of 10/7/2021

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

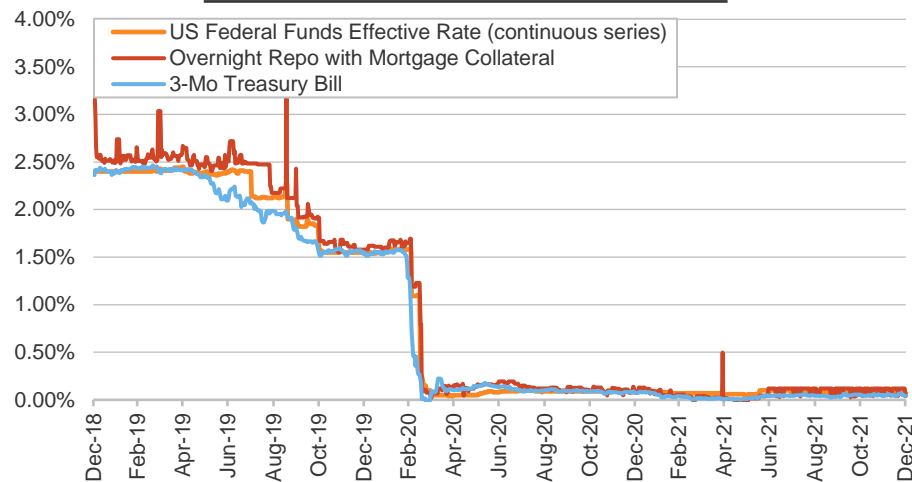
## II. Sector Allocation – Repurchase Agreements

Topic	Observations
<b>Issuer Diversification</b>	<ul style="list-style-type: none"> <li>The County increased its tri-party repurchase agreement allocation over the quarter, with 3.30% of the portfolio allocated to the sector at quarter-end, compared to 1.84% as of September 30, 2021.</li> <li>At the end of the quarter, the portfolio utilized one repurchase agreement provider, BMO Capital Markets, with an allocation of \$288 million.</li> <li>This allocation falls within the permitted investment guidelines of 25% per issuer and 100% maximum to the sector.</li> </ul>
<b>Credit Distribution</b>	<ul style="list-style-type: none"> <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>
<b>Conclusions</b>	<ul style="list-style-type: none"> <li>As of December 31, 2021, the repurchase agreement sector's weighted-average yield was 0.04%, lower than the last quarter. Yields for overnight repurchase agreements remained near zero, in-line with short-term Treasuries, as the Fed funds target rate remains at the zero lower bound.</li> </ul>

**Issuer/Credit Distribution**  
as of December 31, 2021



**Short-Term Yields**  
December 2018 through December 2021

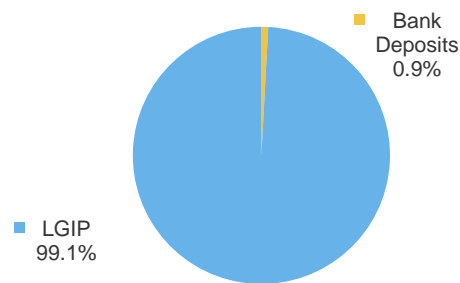




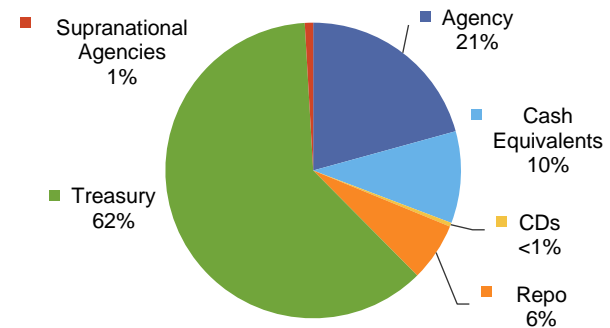
## II. Sector Allocation – LGIPs & Cash Equivalents

	Underlying Investments	Rating (Short-Term: S&P/ Moody's/Fitch)	Observations
<b>Washington State LGIP</b>	<ul style="list-style-type: none"> <li>U.S. Treasuries 61.5%</li> <li>Federal Agencies 20.7%</li> <li>Supranational Agencies 0.9%</li> <li>Repurchase Agreements 6.4%</li> <li>Certificates of Deposit 0.4%</li> <li>Cash Equivalents 10.1%</li> </ul> <i>As of December 31, 2021</i>	<ul style="list-style-type: none"> <li>N/A</li> </ul>	<ul style="list-style-type: none"> <li>The County currently has allocated about \$833 million to the Washington State LGIP, a significant decrease from last quarter's \$1.6 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 second quarter, the State LGIP increased its exposure to federal agencies (+1.5%) and repo (0.5%), while it decreased U.S. Treasuries (-1.7%),\ and cash and cash equivalents (-0.4%).</li> </ul>
<b>Cash Equivalents</b>	<ul style="list-style-type: none"> <li>State LGIP 99.1%</li> <li>U.S. Bank 0.80%</li> <li>Key Bank 0.01%</li> <li>Bank of America 0.04%</li> </ul>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <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 equivalents holdings decreased over the quarter, from 0.23% to 0.08% of the total portfolio.</li> </ul>

**Cash Equivalents Distribution**  
as of December 31, 2021



**Washington State LGIP Sector Distribution**  
as of December 31, 2021



\*All calculations above are based on total cash equivalents exposure, not overall Portfolio.

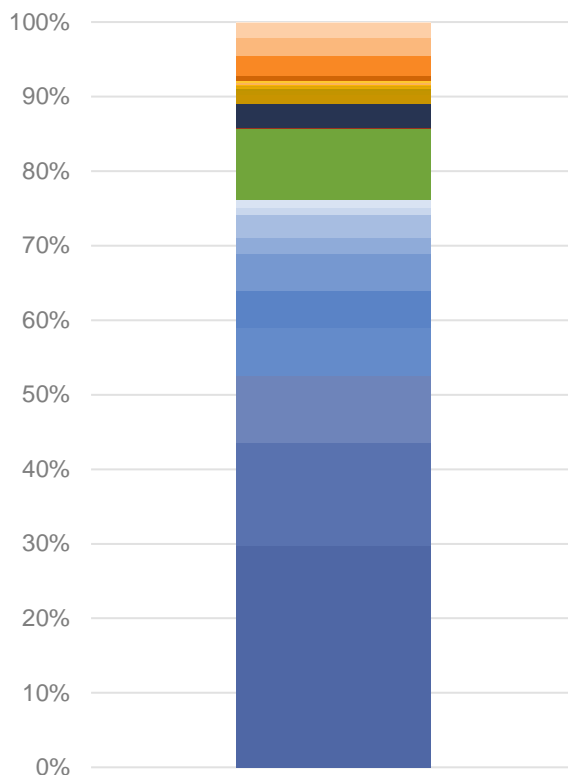
\*\*Percentages may not total to 100% due to rounding.

# III. Issuer Concentration

## Issuer Exposure

- The County maintains a well-diversified portfolio by issuer, as shown in the tables and graph below.
- More than 76% of the portfolio is allocated directly to U.S. government guaranteed or government supported entities.
- Of the remaining 24% of the portfolio, about 13% is allocated to ultra short-term or overnight investment vehicles, including the State LGIP, repurchase agreements, and bank deposits. The remaining 11% is allocated to credit issuers, including commercial paper and corporate notes.

<b>U.S. Treasury (100% Limit)</b>	<b>29.83%</b>
<b>Agency Issuers</b>	<b>Percentage (35% Limit)</b>
Asian Dev Bank	13.72%
Inter-American Dev Bk	9.03%
Intrnl Bk of Recon & Dev	6.36%
FFCB	5.06%
FHLMC	4.84%
FNMA	2.29%
Euro Bk of Recon & Dev	3.10%
FHLB	0.81%
International Finance Corp	1.14%
<b>Washington State LGIP (25% Limit)</b>	<b>9.55%</b>
<b>Overnight Deposits</b>	<b>Percentage (No Limit)</b>
US Bank	0.08%
Bank of America	0.001%
Key Bank	0.004%
<b>Repo Issuers</b>	<b>Percentage (25% Limit)</b>
BMO Capital Markets Corp	3.30%



<b>Corporate Issuers</b>	<b>Percentage (5% Limit)</b>
Apple Inc	1.10%
Procter & Gamble Co	0.52%
US Bank	0.41%
Honeywell International	0.18%
Canadian Imperial Bank	0.20%
Home Depot	0.09%
Bank of Montreal	0.29%
Bank of Nova Scotia	0.27%
<b>CP Issuers</b>	<b>Percentage (5% Limit)</b>
Toronto Dominion (CP)	0.57%
Royal Bank of Canada (CP)	2.75%
Bank of Nova Scotia (CP)	2.42%
Canadian Imperial Bank (CP)	2.06%
Bank of Montreal	0.02%

Percentages may not add to 100% due to rounding.

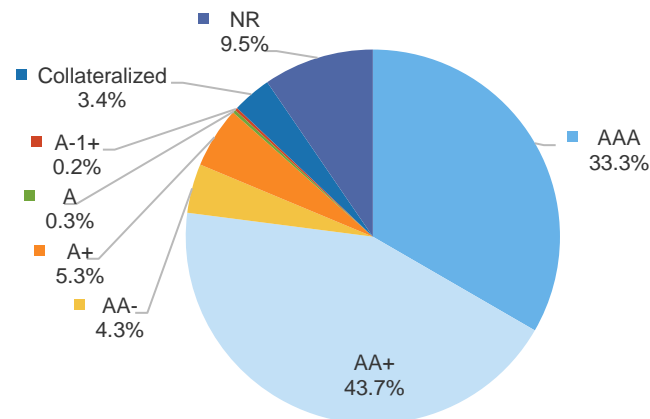
\* For the purposes of totaling issuer concentration, issuers are aggregated across all sector types. It is noted however that issuers across sector types may maintain separately rated issuer credits.

# 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 and federal agency notes, which maintain a short-term credit rating of A-1+ by S&P.
- The County also maintained its holdings of supranational agencies, which are rated AAA.
- The County largely maintained its credit exposure through commercial paper and corporate notes over the quarter, ending at 10.88% of the portfolio, compared to 9.70% last quarter.
  - Commercial paper accounts for 7.82% of the entire portfolio, while corporate notes account for 3.06%.
- Corporate note allocations held throughout the quarter have ratings of A or higher.
  - Commercial paper allocations are all rated A-1/P-1 or higher.
- The 9.5% 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, 0.65% of the County's Pool is allocated indirectly to corporate securities (repurchase agreements and certificates of deposit).

**Total Pool Credit Distribution\***  
as of December 31, 2021

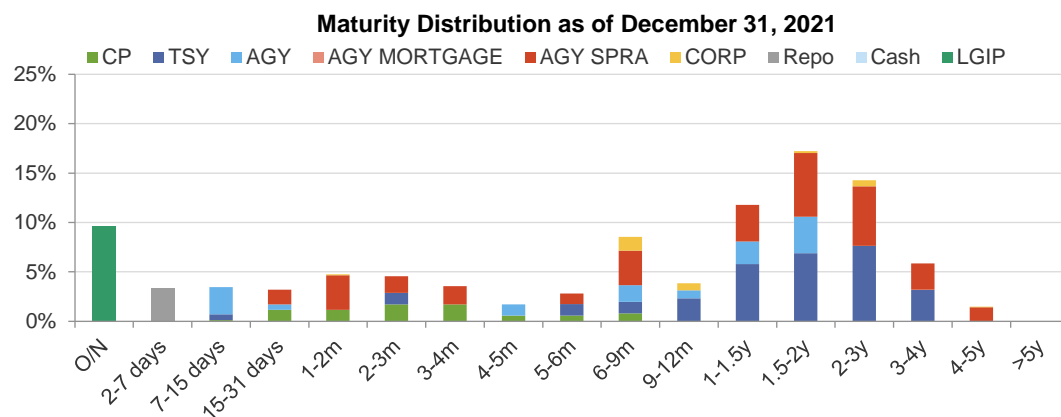


**Corporate/CP Issuer Ratings Table**  
as of December 31, 2021

Issuer Distribution	Sectors Invested	S&P Short*	S&P Long*	Moody's Short**	Moody's Long**
Apple Inc	Corp	A-1+	AA+	P-1	Aa1
Bank of Nova Scotia	Corp/CP	A-1	A+	P-1	Aa2
Canadian Imperial Bank	Corp/CP	A-1	A+	P-1	Aa2
Home Depot Inc	Corp	A-1	A	P-1	A2
Honeywell International	Corp	A-1	A	P-1	A2
Procter & Gamble Co/The	Corp	A-1+	AA-	P-1	Aa3
Royal Bank of Canada	CP	A-1+	AA-	P-1	Aa2
Toronto-Dominion Bank	CP	A-1+	AA-	P-1	Aa2
US Bank	Corp	A-1+	AA-	P-1	A1
Bank of Montreal	Corp/CP	A-1	A+	P-1	Aa2

# V. Maturity Distribution

Maturity Distribution	Observations
<b>Weighted Average Maturity (“WAM”)</b>	<ul style="list-style-type: none"> <li>The County continues to invest across its permitted maturity range, as seen in the chart below.</li> <li>About 49% of the portfolio holdings are scheduled to mature within the next twelve months, a 5% increase from the previous quarter-end and well above the 40% mandated by the investment policy.</li> <li>It appears the County’s maturity strategies over the past several quarters have included:               <ul style="list-style-type: none"> <li>Continuing to allow previously purchased, longer-dated U.S. Treasury investments to naturally shorten in maturity and roll-down the yield curve.</li> <li>Targeting purchases in the following spaces:                   <ul style="list-style-type: none"> <li>Supranational agency purchases with maturities beyond 1 year.</li> <li>Longer-duration U.S. Treasury securities to capture the relative steepness of the yield curve.</li> </ul> </li> <li>The WAM of the portfolio ended the quarter at 432 days, down from the 479 days at previous quarter-end.</li> <li>The decrease in portfolio WAM can primarily be attributed to roll down and the sale U.S. Treasuries in the 2-3 year end of the curve.</li> </ul> </li> </ul>
<b>Liquidity</b>	<ul style="list-style-type: none"> <li>The County Pool appears to provide adequate liquidity, both in terms of final maturities and the sectors in which the portfolio has invested. In addition to the 13% of the portfolio invested in a combination of the Washington State LGIP, bank deposits, and repurchase agreements (overnight liquidity), another 20% of the portfolio’s holdings are scheduled to mature within the next thirty-one days.</li> </ul>



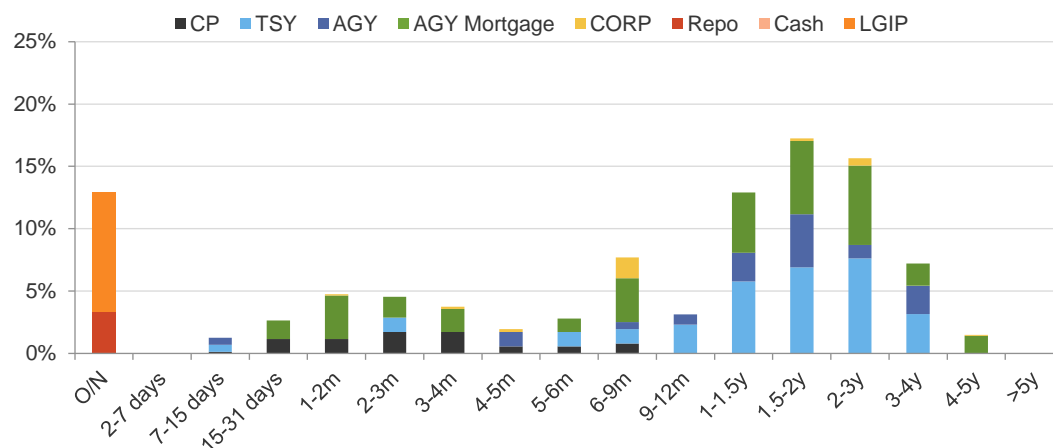
Contribution to Maturity		
Sector	12/31/21	9/30/21
Supranational Agencies	181.32	173.42
Cash	0.00	0.00
Corporate Notes	13.05	10.70
Commercial Paper	7.38	7.07
Federal Agencies	42.69	55.11
The Washington State LGIP	0.10	0.19
Agency Mortgages	0.25	0.30
Repurchase Agreements	0.10	0.02
US Treasuries	187.30	232.59
<b>Maturity:</b>	<b>432 days</b>	<b>479 days</b>

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
<b>Definition</b>	<ul style="list-style-type: none"> <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> <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>
<b>Duration</b>	<ul style="list-style-type: none"> <li>The portfolio's weighted average duration is within the IPS guidelines (no greater than 1.5 years).</li> <li>As of December 31, the duration of the County Investment Pool was 1.26 years, a decrease from the previous quarter which ended at 1.37 years.                             <ul style="list-style-type: none"> <li>The decrease in portfolio duration was driven by the County's recent sale of U.S. Treasuries with 3-4 Years remaining in maturity.</li> <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> <li>The overall portfolio, and the benchmark, duration increased over the quarter. Compared to the benchmark, the portfolio's duration decreased from 118% to 103% of the benchmark duration for the period ending December 31.</li> </ul> </li> </ul>

**Duration Distribution as of December 31, 2021**



Contribution to Duration		
Sector	12/31/21	9/30/21
Supranational Agencies	0.49	0.46
Cash	0.00	0.00
Corporate Notes	0.03	0.03
Commercial Paper	0.02	0.02
Federal Agencies	0.21	0.23
The Washington State LGIP	0.00	0.00
Agency Mortgages	0.00	0.00
Repurchase Agreements	0.00	0.00
US Treasuries	0.50	0.62
<b>Duration:</b>	<b>1.26 years</b>	<b>1.37 years</b>

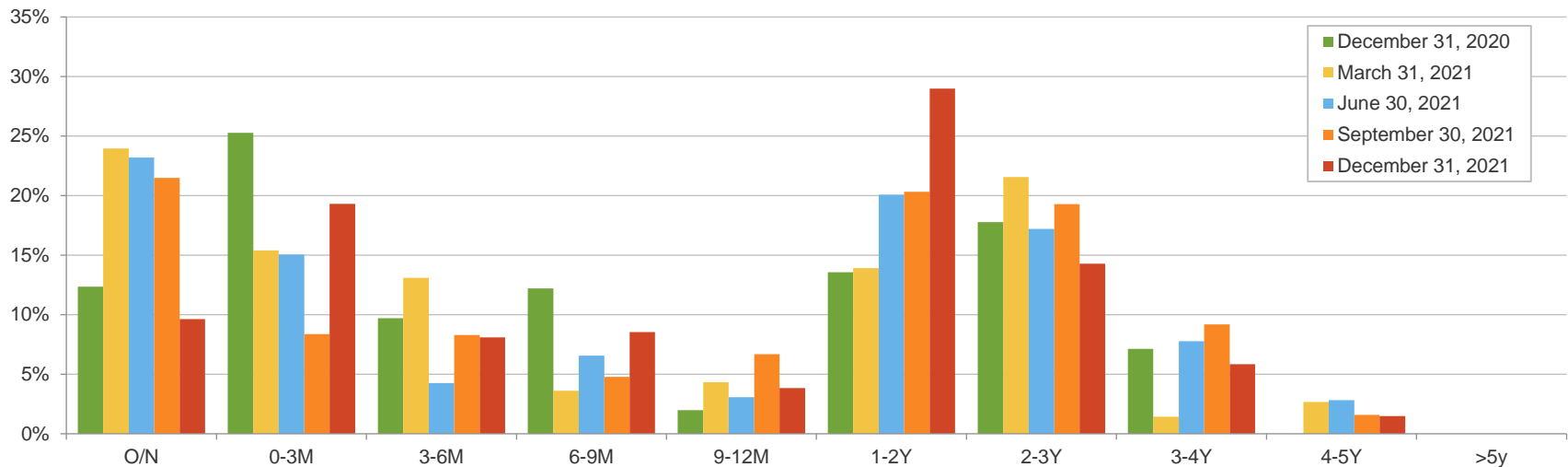
Agency Mortgage durations are shown as effective duration taken from Bloomberg Financial Markets.  
 Duration for Federal Agency Discount Notes and Repurchase Agreements are calculated as days to maturity.  
 WA LGIP and bank deposits considered to have a one day duration.  
 All other security durations are calculated as effective duration as given by Bloomberg Financial Markets.

# V. Changes in Portfolio Maturity Distribution

## Changes in Portfolio Maturity Distribution

- When viewing the current maturity distribution (red bars) in relation to previous periods, a few primary observations are noted:
  - It appears the County targeted an overall portfolio contraction during the third quarter, as seen by the reduced allocations in the 2-to-3 year and 3-to-4 year maturity buckets.
    - Decreases in these portions of the curve are due to recent sale of U.S. Treasuries, as well as the natural roll-down of originally longer-dated supranational and corporate notes.
- Compared to the third quarter, the yield curve is steeper. The steepness is higher in the 3-5 year portion of the curve and therefore offers increased value to invest farther out in the 3-5 year space.
  - Locking in yields in the 3-5 year area of the curve and finding relative value within sectors may allow the portfolio to benefit from incremental income even as short-term interest rates are expected to go above near zero in the near future.

**Maturity Distribution December 31, 2020 to December 31, 2021**



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.

# Disclaimer

Investment advisory services are provided by PFM Asset Management LLC (“PFMAM”), an investment adviser registered with the U.S. Securities and Exchange Commission and a subsidiary of U.S. Bancorp Asset Management, Inc. (“USBAM”). USBAM is a subsidiary of U.S. Bank National Association (“U.S. Bank”). U.S. Bank is a separate entity and subsidiary of U.S. Bancorp. U.S. Bank is not responsible for and does not guarantee the products, services or performance of PFMAM. The information contained is not an offer to purchase or sell any securities. Additional applicable regulatory information is available upon request.

For more information regarding PFMAM’s services please visit [www.pfmam.com](http://www.pfmam.com).

