King County Investment Pool

Portfolio Review

Quarter Ended December 31, 2018

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Executive Summary

Purpose, Scope and Approach	• PFM Asset Management LLC ("PFM") prepared this report to update our ongoing analysis and to address any Investment Pool developments since our September 2018 review. Our approach included a detailed portfolio analysis and Investment Policy Compliance review, based on the County's Investment Policy, dated July 26, 2017. • Our analysis was based on the Investment Pool's holdings as of December 31, 2018, with reference to holdings in past periods. • The review encompasses all current investments in the County's Investment Pool.
Investment Program and Portfolio Review	• PFM reviewed the County's portfolio with respect to Investment Policy Compliance, Sector Allocation, Issuer Concentration, Credit Quality, Maturity Distribution, and Duration Distribution. • 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.
Market Recap	• Risk-off sentiment dominated markets through the final months of 2018 as volatility surged, stocks lost their footing, credit spreads widened, and the belly of the curve (maturities between one and five years) inverted. • The Fed increased short-term rates by an additional ¼ percent in December (the fourth hike of the year). The pace of future Fed rate hikes is uncertain heading into the New Year, as median Fed projections indicate two more hikes in 2019 but market implied probability of Fed decisions predict zero hikes this year. • The labor market remained a tailwind for the economy as the U.S. unemployment rate ticked lower (3.9%) amid robust job growth, and average hourly earnings continued its ascent. • The S&P 500 Index neared correction territory and finished Q4 down 13.5% (the largest quarterly decline since Q3 2011); equity volatility surged, as measured by the Chicago Board Options Exchange Volatility Index (VIX), breaching levels only seen three times in the last five years. • Political tensions continue to be a potential market headwind. Internationally, a resolution to the trade dispute between the U.S. and China remains elusive, while domestically, the government shutdown has dragged on to become the longest in history.
Observations	• The portfolio is of very high credit quality. The majority of securities (78%) are explicitly guaranteed or carry a high level of support by the U.S. Government (U.S. Treasury and federal agency) and/or possess overnight liquidity (Washington State LGIP, bank deposits, and repurchase agreements). • The County continued to diversify its issuers over the quarter with credit purchases of commercial paper from the Bank of Nova Scotia, Merck & Co, and the Royal Bank of Canada, and corporate notes from the Bank of New York Mellon, Honeywell International, and Home Depot Inc. • The Portfolio shortened duration over the quarter from 90% to 84% of the benchmark's duration, due to holdings in Supranational agencies and Treasuries rolling down the yield curve from last quarter, as well as the addition of short-term Treasury holdings, • The County Pool appears to provide adequate liquidity, with 13% (or $1 billion) invested in a combination of the State LGIP, bank deposits, and repurchase agreements (overnight) and 38% of the portfolio invested in US Treasuries. • In anticipation of the upcoming quarter, during the first quarters of the past five years, the Pool experienced an average net <u>outflow</u> of $266 million.

Investment Pool Portfolio Review

Investment Policy Compliance – 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 Compliance – Investment Policy Summary (cont'd)

Type	Maximum Portfolio Allocation	Issuer Restrictions	Credit Ratings	Maturity Restrictions
Bankers' Acceptances	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
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
Commercial Paper	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
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 Compliance – Investment Policy Summary (cont'd)

Type	Maximum Portfolio Allocation	Issuer Restrictions	Credit Ratings	Maturity Restrictions
Mortgage-Backed Securities	25%	Must be issued by Federal Agencies of the United States. Investments in MBS will count toward the total that can be invested in any one agency as described in U.S. Agencies above. Full faith and credit MBS are limited to 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.	3% per issuer rated AA or better. 2% per issuer rated in broad single A category. Split ratings will take most conservative rating. Maximum 3% per issuer in combined categories of commercial paper and corporate notes. Maximum 5% per issuer applied across investment types.	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.

I. Investment Policy Compliance – County Investment Pool

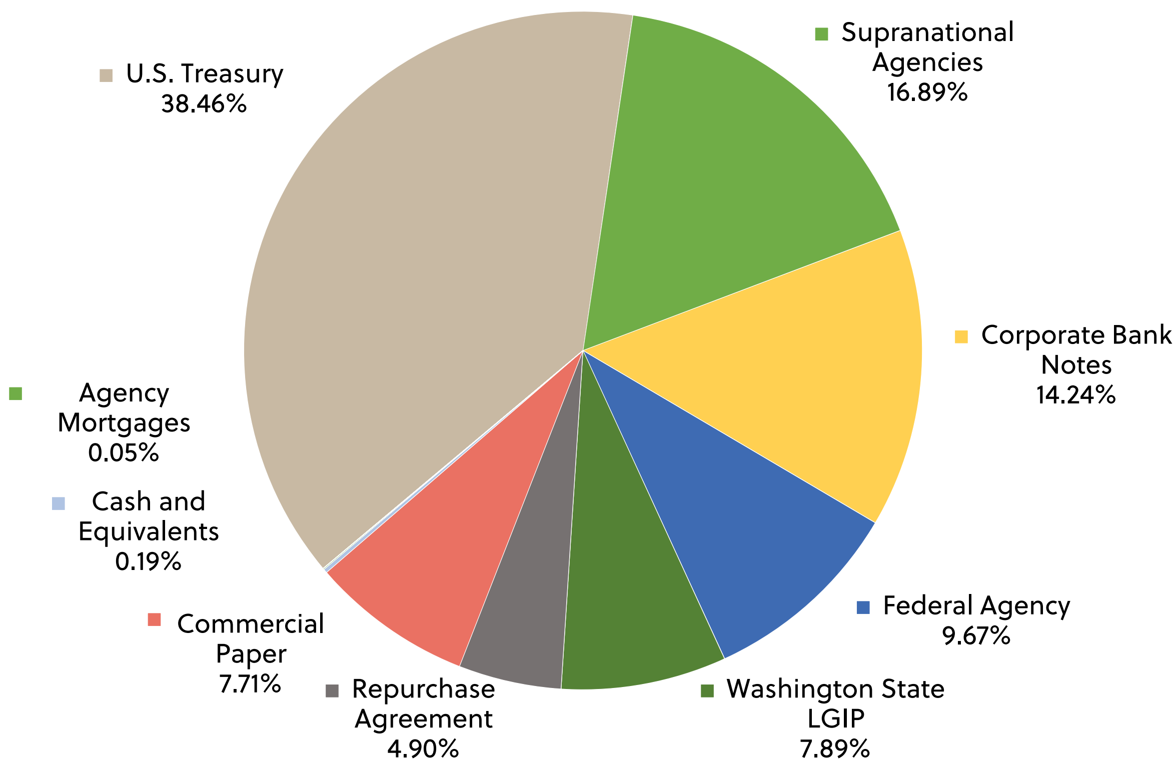
Topic	Observations
Sector Allocation	• All sector allocations fall within the limits set forth by the County's Investment Policy Statement. The Pool is predominantly invested in U.S. government securities which are either explicitly guaranteed or carry a high level of support by the U.S. government. • The County's Investment Pool balance (market value) as of December 31, 2018 was $7.5 billion and it experienced a net increase of approximately $358 million over the quarter. • Over the quarter, the only sector that experienced a sector allocation percentage increase was commercial paper (+5.48%). The sector remains with applicable policy limits. • Sectors that experienced decreases in quarter-over-quarter allocation percentages included: federal agencies (-2.68%) and the Washington State LGIP (-1.23%).
Credit Quality	• Approximately 65% of the County pool's assets are guaranteed or supported by the U.S. government. Furthermore, 8% is invested in the State LGIP, where 60% of the LGIP is invested directly in U.S. Treasuries or federal agencies. Additionally, considering the County pool's holdings of repurchase agreements and bank accounts collateralized by government securities, the overall government-related credit quality exceeds 70%. • Corporate allocations (both commercial paper and corporate notes) increased over the quarter to 22% of the portfolio from 17%, and all securities are investment grade. Allocations to corporate notes continue to be below the maximum allocation limit of 25%. • Total allocations of corporate notes and commercial paper also do not exceed the 50% allocation limit set forth in the County's Investment Policy.
Maturity Distribution	• All maturities fall within the limits set forth in the County's Investment Policy. • Approximately 54% of the Pool's assets mature in one year or less, well above the minimum of 40% that is mandated by the Investment Policy.

Security Type	Market Value($)	Allocation Percentage	Within Policy Limits	Max Maturity Held	Within Policy Limits
U.S. Treasury	2,873,869,130	38.46%	✓	2.21 years	✓
Supranational Agencies	1,262,024,126	16.89%	✓	3.07 years	✓
Corporate Bank Notes	1,064,126,779	14.24%	✓	3.17 years	✓
Federal Agency	722,642,800	9.67%	✓	1.88 years	✓
Washington State LGIP	589,305,508	7.89%	✓	1 day	✓
Repurchase Agreement	366,000,000	4.90%	✓	1 day	✓
Commercial Paper	576,197,207	7.71%	✓	192 days	✓
Cash and Equivalents	14,228,301	0.19%	✓	1 day	✓
Agency Mortgages	4,031,541.25	0.05%	✓	4.11 years (WAL)	✓
TOTAL	7,472,425,394	100.00%			

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

II. Sector Allocation

Sector Diversification
as of December 31, 2018

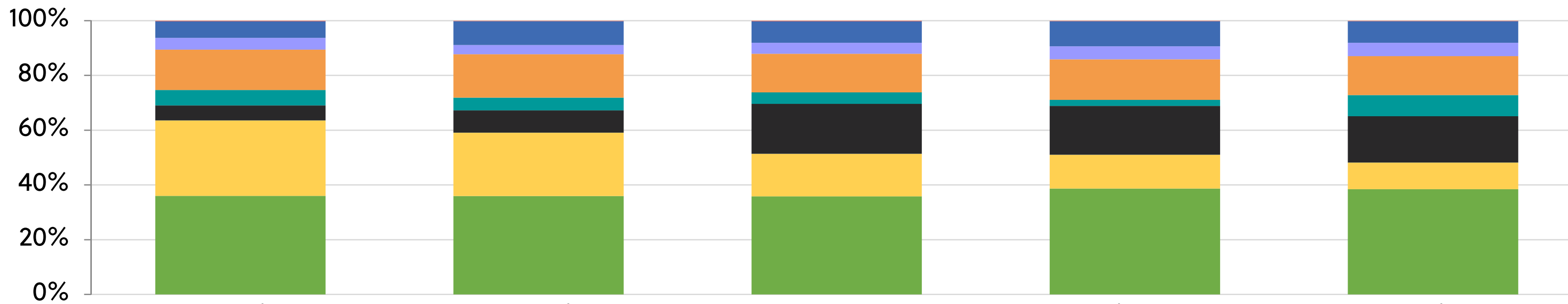


**Percentages may not total to 100% due to rounding.*

II. Changes in Portfolio Sector Allocation over the Past 12 Months

Changes in Sector Allocation

- The County's investment pool increased percentage allocations to commercial paper (+5.48%), while decreasing allocations to federal agencies (-2.68%) and the Washington State LGIP (-1.23%).
- U.S. Treasuries During the fourth quarter U.S. Treasuries decreased by $136 million and the overall allocation to the sector decreased slightly to 38.46% over the quarter.
- Federal Agencies Federal agency allocations including supranationals and mortgage securities decreased by $159 million, or -3.58% over the quarter.
- Corporate Notes The portfolio's corporate note exposure decreased slightly over the quarter to account for 14.2% of the overall portfolio from last quarter's 14.8%.
- Commercial Paper Commercial paper increased significantly during the quarter. These holdings now account for 7.71% of the total portfolio, up 5.48% from 2.20% last quarter.
- Washington State LGIP Balances invested in the State LGIP decreased by about $59 million and continued to serve as the Pool's primary liquidity vehicle. This investment accounts for approximately 7.9% of the overall portfolio.
- Repurchase Agreements and Bank Deposits Allocations to repurchase agreements increased by $26 million over the quarter and account for 4.9% of the total portfolio.



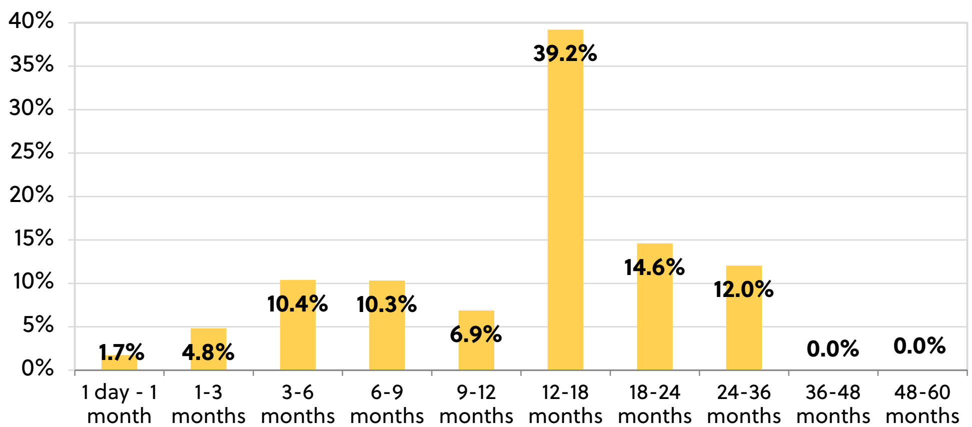
	December 31, 2017	March 31, 2018	June 30, 2018	September 30, 2018	December 31, 2018
U.S. Treasury	36.03%	35.94%	35.82%	38.66%	38.46%
Federal Agencies	27.49%	23.08%	15.52%	12.35%	9.67%
Agency Mortgages	0.07%	0.07%	0.06%	0.06%	0.05%
Supranational Agencies	5.47%	8.16%	18.22%	17.79%	16.89%
Commercial Paper	5.61%	4.63%	4.18%	2.23%	7.71%
Corporate Notes	14.77%	15.83%	14.13%	14.80%	14.24%
Repurchase Agreements	4.29%	3.40%	4.01%	4.78%	4.90%
Washington State LGIP	6.02%	8.66%	7.80%	9.11%	7.89%
Cash and Equivalents	0.25%	0.22%	0.27%	0.23%	0.19%

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

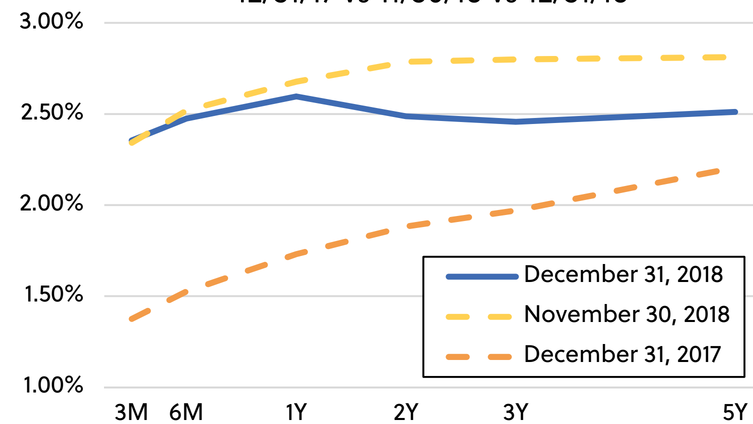
II. Sector Allocation – U.S. Treasury Securities

Topic	Observations
Observations	• The County's balances held in U.S. Treasuries decreased to 38.5% of the total portfolio, down slightly from 38.7% in the third quarter. – Treasury yields fell across the curve during the fourth quarter, as volatility in equity markets caused a flight to high-quality instruments like Treasury securities. o The 10-year Treasury yield was down 38 bps, while the two-year yield fell 60 bps. o The yield curve inverted in the 1-year to 5-year space. A selloff in equity markets pushed longer-term yields lower while the Fed raised the federal funds target rate for the fourth time in 2018, pushing short-term yields up. – The majority of the Pool's Treasury investments ($1.89 billion, or 65.8% of all Treasury holdings) have remaining maturities of greater than one year and are positioned in the steeper portions of the U.S. Treasury yield curve. • The County's weighted average maturity (WAM) of its Treasury allocation decreased over the quarter by 13 days, from 444 days on September 30th, to 431 days on December 31st due to longer-dated securities rolling down the yield curve from 18-24 months into the 12-18 months area of the curve. • The chart on the left below, illustrates the current maturity distribution of the County's allocations to U.S. Treasuries and the chart on the right illustrates the current shape of the U.S. Treasury yield curve, compared to the yield curve a month ago and one year ago. The yield curve has inverted, with a 1-year Treasury yielding higher than a 5-year Treasury. Investors are not being compensated for taking additional risk by investing longer. Subsequently, the County's Treasury holdings are concentrated in shorter-term securities, primarily in the 12-18 month area of the curve.

U.S. Treasury Maturity Distribution as of December 31, 2018



U.S. Treasury Yield Curve 12/31/17 vs 11/30/18 vs 12/31/18

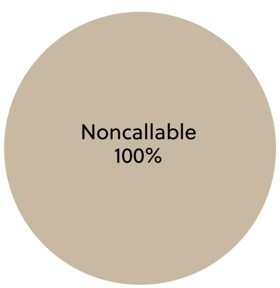


** Source Bloomberg Financial Systems*

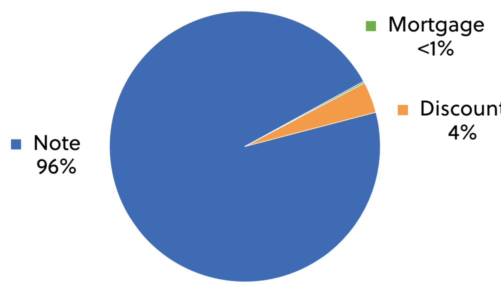
II. Sector Allocation – Federal Agencies

Topic	Observations	
Structure *(as % of Federal Agency Allocations)*	• Non-Callable 100.0% • Callable 0.0%	• Discount Notes 3.7% • Coupon Bearing Notes 96.1% • Agency Mortgage 0.2%
Diversification *(as % of Federal Agency Allocations)*	• Freddie Mac (FHLMC) 5.7% • Federal Home Loan Bank (FHLB) 12.0% • Fannie Mae (FNMA) 10.0% • Supranational Agencies 63.5%	• Federal Farm Credit Bank (FFCB) 8.7% • Freddie Mac Mortgage-Backed (FHR) 0% • Fannie Mae Mortgage-Backed (FNR) <1%
Conclusions	• The County's federal agency holdings continue to be well diversified. All issuer allocations fall within the issuer guidelines and security structures in the County's investment policy (max per agency issuer 35%). • The amount invested in federal agencies, excluding supranationals and mortgage securities, decreased from the third quarter by $156 million. As a portion of the total portfolio, federal agencies decreased from 12.4% in the third quarter to 9.7% in the fourth quarter. • All supranational agency holdings are below the 35% issuer limit, at 16.7% of the entire portfolio. • The County Pool's only remaining allocation to agency mortgages is in Fannie Mae pools, totaling approximately $4.0 million. • Four federal agencies matured in the fourth quarter, for a total of $382 million, compared to a total of $314 million maturing in the quarter ended September 30th. The County purchased one new federal agency discount note this quarter from the Federal Farm Credit Bank.	

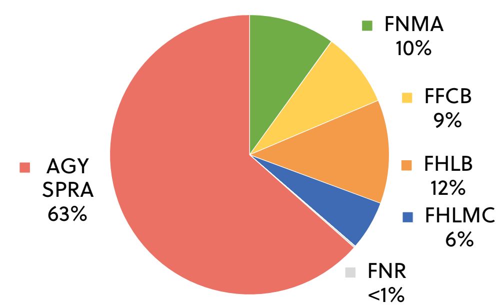
Callable vs. Non-Callable
as of December 31, 2018



Structure Distribution
as of December 31, 2018



Issuer Diversification
as of December 31, 2018

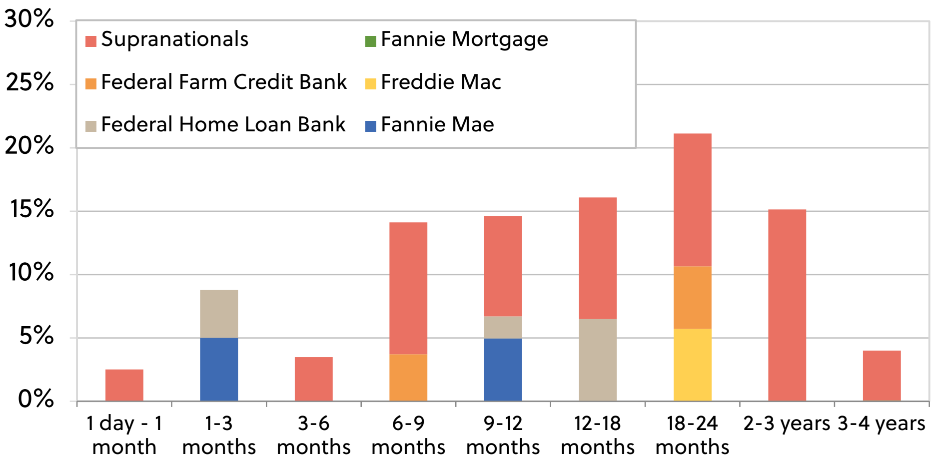


**All calculations above are based on total cash equivalents exposure, not overall Portfolio.*
***Percentages may not total to 100% due to rounding.*

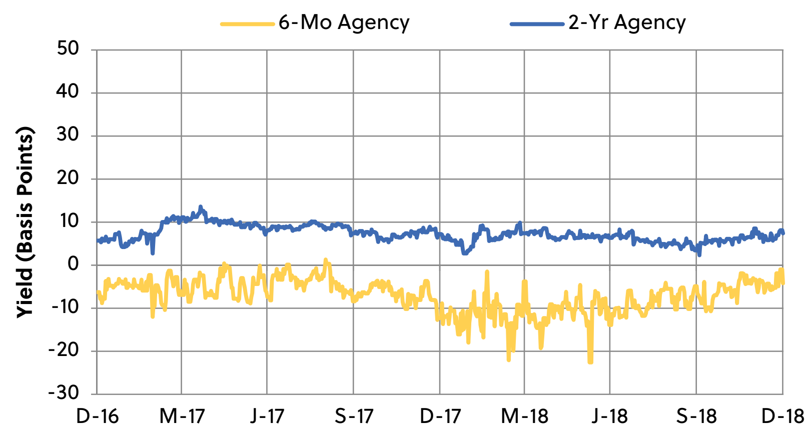
II. Sector Allocation – Federal Agencies

Topic	Observations
Maturity Distribution	• The County's federal agency maturity distribution falls within the limits set forth by the Investment Policy Statement. • Over the quarter, the County's weighted average maturity (WAM) of federal agency holdings decreased by 21 days, from 487 days on September 30th to 466 days on December 31st. • Agency spreads in the shorter end (less than 2 years) of the curve remain near 12-month tights. Supranational spreads have also narrowed, but remain as attractive alternatives to federal agency securities. — When yields of federal agencies and Treasuries are relatively close, the U.S. Treasury security is typically preferred. • There were three new agency purchases this quarter; one federal agency discount note, and two supranational issues in the 9-12 month area of the curve. — Given these additions, 56% of the County's total agency holdings are invested in maturities greater than 1 year, compared to 54% of agency holdings on September 30th.

Federal Agency Maturity Distribution by Name
as of December 31, 2018



Federal Agency Yield Spreads to Treasuries
Past 24 Months



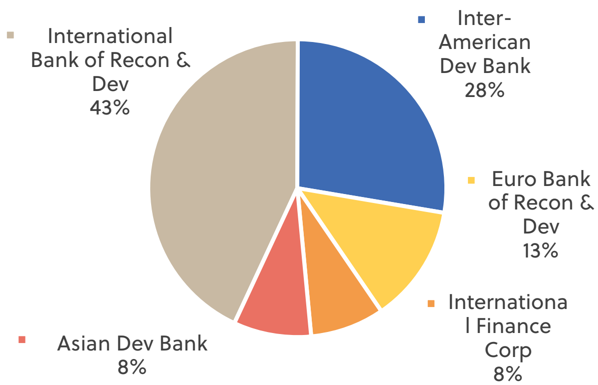
** Source Bloomberg Financial Systems*

- *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.*

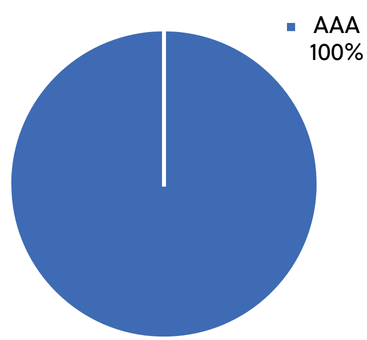
II. Sector Allocation – Supranational Agencies

Topic	Observations
Credit Distribution	• The County added two supranationals in the fourth quarter, one from the International Bank of Reconstruction & Development, and one from the Inter-American Development Bank. • The County maintained its exposure to five supranational issuers over the quarter. — 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. • 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. — The portfolio's allocation to supranational agencies remains concentrated (62%) in maturities over 1 year.
Spread to Agency Rates	• The chart on the right shows the spread between supranational agencies and federal agency securities. — Supranational agencies remain a value-adding alternative to both comparable maturity Treasuries and federal agencies. However, supranational agency issuance is seasonal, and tends to be highest in the beginning of a calendar year. Near year-end, spreads between supranational agencies and Treasuries tightened as supply dwindled. Tighter spreads make relative value options more difficult to find.

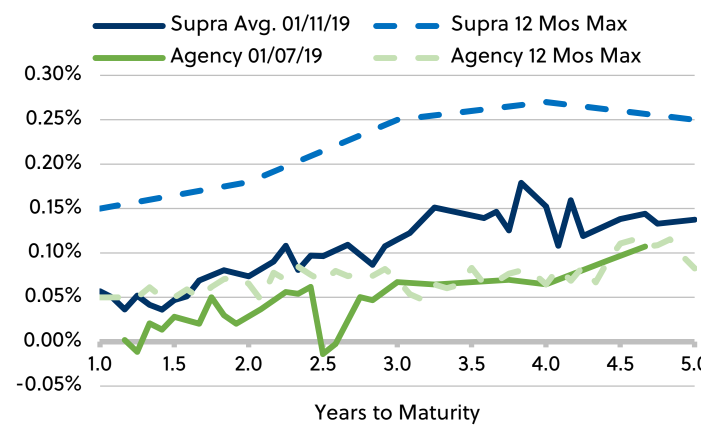
Issuer Distribution as of December 31, 2018



Credit Distribution as of December 31, 2018



Supranational Agency vs. Federal Agency Yield Spreads

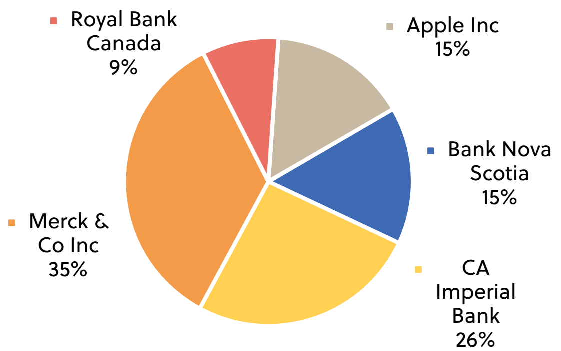


** Source Bloomberg Financial Systems*

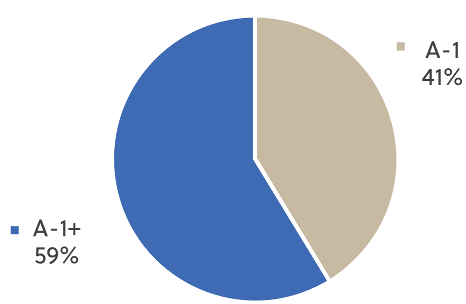
II. Sector Allocation – Commercial Paper

Topic	Observations
Issuer Diversification	• The County's allocation to commercial paper increased over the quarter, by approximately $417 million and now accounts for 7.7% of the total portfolio, up from 2.2% at the end of the third quarter. • The portfolio continued to hold Apple Inc and Canadian Imperial Bank commercial paper, but also added the Bank of Nova Scotia, the Royal Bank of Canada, and Merck & Co to its holdings. The County has previously held Bank of Nova Scotia and Merck & Co commercial paper. The Toronto Dominion commercial paper held last quarter matured in the fourth quarter. • The incremental additional yield offered by commercial paper rose in the fourth quarter, as equity market volatility and a Fed rate hike pushed short-term yields higher. — "Rolling" short-term commercial paper is an attractive investment strategy relative to most other short-term permitted investment options in the current fixed income market.
Credit Distribution	• Standard & Poor's rates the short-term credit of Apple Inc., Merck & Co, and the Royal Bank of Canada as A-1+, and Canadian Imperial Bank and the Bank of Nova Scotia as A-1.
Conclusions	• 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 generally offer greater yields than other short term securities and overnight investments. • After underweighting commercial paper allocation in the third quarter, the County was well-positioned to increase allocations as relative yields rose in the fourth quarter. The County further diversified its holdings from three issuers to five while maintaining high credit quality.

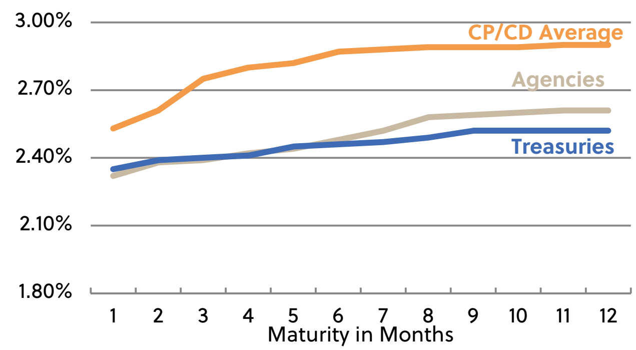
Issuer Distribution
as of December 31, 2018



Credit Distribution
as of December 31, 2018



Current Short-Term Yields
as of December 31, 2018



* Source Bloomberg Financial Systems

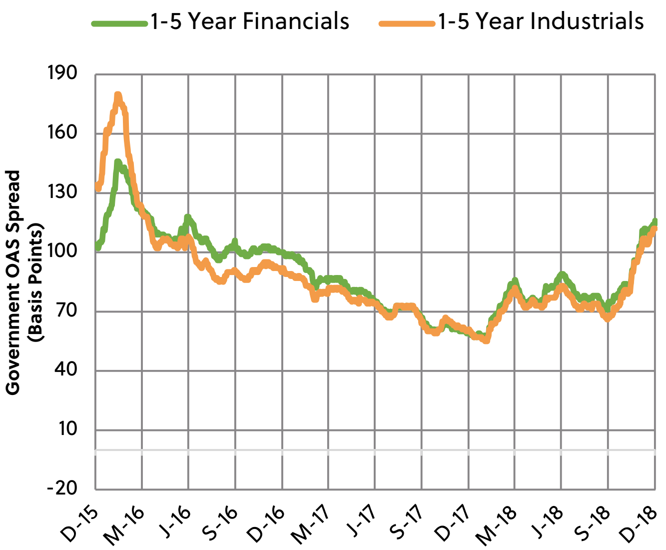
*All calculations above are based on total cash equivalents exposure, not overall Portfolio.
**Percentages may not total to 100% due to rounding.

II. Sector Allocation – Corporate Notes

Topic	Observations
Maturity Distribution	• The County largely maintained its allocation to high-quality corporate notes, decreasing slightly by 0.6% over the quarter. This sector accounts for 14.2% of the overall portfolio, totaling approximately $1.1 billion. Of corporate note holdings, 40% was still callable as of December 31. – The County added three new high-quality names to the corporate sector; Bank of New York Mellon, Home Depot Inc., and Honeywell International. • When viewing the County's corporate note holdings to the next call date, the weighted average maturity of these investments is 1.3 years. Of the County's total allocation to this sector, 41% is held in maturities beyond 1 year. All corporate holdings mature in 4 years or less. • The graph on the right below shows the difference in yields for financial corporates and industrial corporates when compared to a similar-maturity Treasury security. In the last few quarters, financial spreads have outpaced industrial spreads, with both spreads widening this quarter.

Credit & Issuer Distribution	S&P Short	S&P Long	Moody's Short	Moody's Long	% of Corporate Holdings	% of Portfolio
Toronto Dominion Bank	A-1+	AA-	P-1	Aa1	12.53%	1.78%
Microsoft Corp	A-1+	AAA	P-1	Aaa	10.52%	1.50%
Bank of Montreal	A-1	A+	P-1	Aa2	10.34%	1.47%
US Bank	A-1+	AA-	P-1	A1	9.79%	1.39%
JP Morgan Chase	A-1	A+	P-1	Aa2	8.70%	1.24%
Royal Bank of Canada	A-1+	AA-	P-1	Aa2	8.41%	1.20%
Bank of Nova Scotia	A-1	A+	P-1	Aa2	8.21%	1.17%
Wells Fargo Bank	A-1	A+	P-1	Aa2	7.01%	1.00%
Bank of New York Mellon	A-1+	AA-	P-1	Aa2	4.69%	0.67%
Proctor & Gamble Co	A-1+	AA-	P-1	Aa3	3.26%	0.46%
Apple Inc.	A-1+	AA+	P-1	Aa1	3.16%	0.45%
PNC Bank	A-1	A	P-1	A2	3.01%	0.43%
Canadian Imperial Bank	A-1	A+	P-1	Aa2	2.79%	0.40%
United Parcel	A-1	A+	P-1	A1	2.77%	0.39%
3M Co	A-1+	AA-	P-1	A1	1.42%	0.20%
Walt Disney Co	A-1+	A+	P-1	A2	1.40%	0.20%
Honeywell International	A-1	A	P-1	A2	1.23%	0.17%
Home Depot Inc.	A-1	A	P-1	A2	0.76%	0.11%

Corporate/Treasury Yield Spreads
December 2015 through December 2018



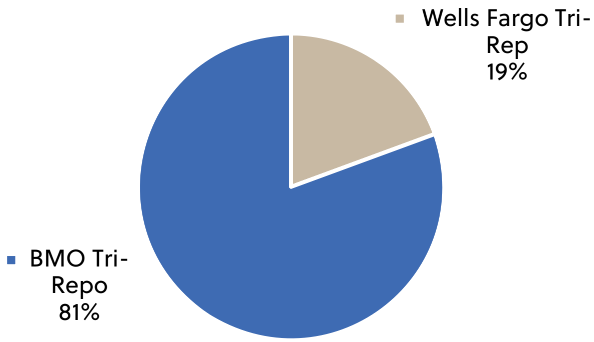
* Source Bloomberg Financial Systems

**Percentages may not total to 100% due to rounding.*
***Source Moody's*

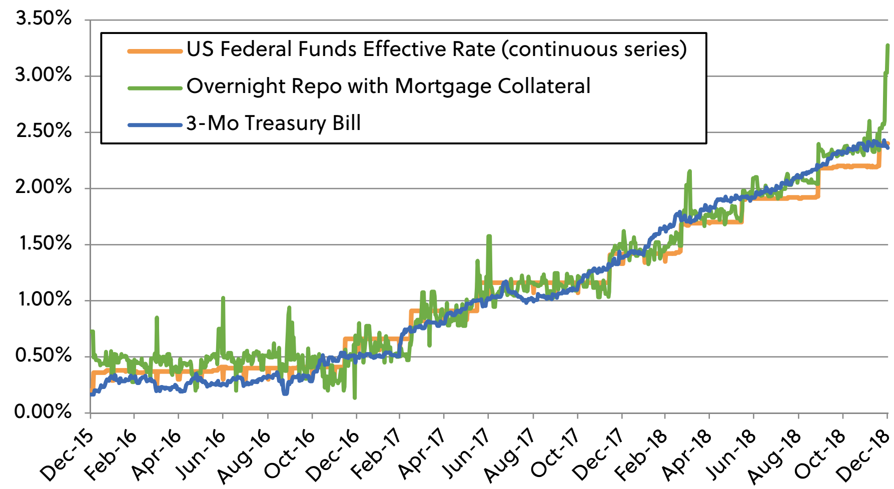
II. Sector Allocation – Repurchase Agreements

Topic	Observations
Issuer Diversification	• The County maintained tri-party repurchase agreement allocations over the quarter, with 4.9% of the portfolio allocated to the sector, compared to 4.8% in September. • At December 31, the portfolio utilizes two repurchase agreement providers, Wells Fargo Bank, with an allocation of $71 million and Bank of Montreal, with an allocation of $295 million. • This allocation falls within the permitted investment guidelines of 25% per issuer and 100% maximum to the sector.
Credit Distribution	• Standard & Poor's rates both Wells Fargo and Bank of Montreal's short-term issuer credit as A-1. • While these issuers have high-quality ratings from S&P, the ultimate quality of the repurchase agreement depends on the underlying collateral.
Conclusions	• As of December 31, 2018, the repurchase agreement sector's weighted-average yield was 2.51%, which is an additional 26 bps compared to the last quarter. Yields for overnight repurchase agreements continue to climb in keeping with the rise in short term Treasury rates.

Issuer/Credit Distribution
as of December 31, 2018



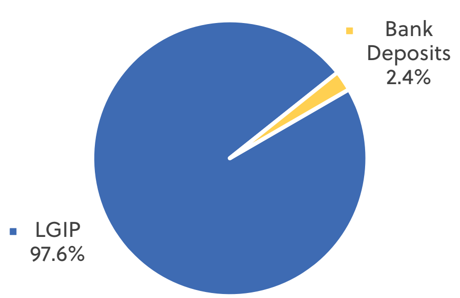
Short-Term Yields
December 2015 through December 2018



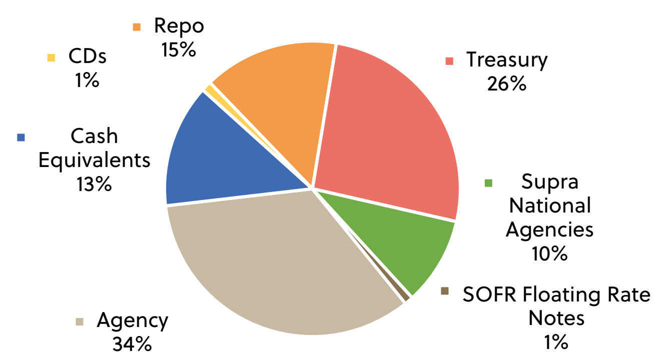
II. Sector Allocation – LGIPs and Cash Equivalents

	Underlying Investments	Rating (Short-Term: S&P/ Moody's/Fitch)	Observations
Washington State LGIP	• U.S. Treasuries 26.1% • Federal Agencies 34.1% • Supra National Agencies 9.7% • Repurchase Agreements 14.9% • Certificates of Deposit 1.1% • Cash Equivalents 13.6% • SOFR Floating Notes 1.0% *As of December 31, 2018*	• N/A	• The County currently has allocated $589 million to the Washington State LGIP, down approximately $156 million from the previous quarter. • The County's allocation to the State LGIP continues to serve as the primary source of overnight liquidity for the portfolio. • The State LGIP reversed direction on federal agency allocations from last quarter, decreasing the sector by 8.0% in favor of Treasury securities (+5.2.%) and supranational agencies (+2.6). For the first time, the LGIP added SOFR Floating Rate Notes to its portfolio, which are securities whose coupon varies with changes in the Secured Overnight Financing Rate (SOFR). SOFR is a fairly new short-term rate based on transactions where banks or investors borrow Treasuries overnight.
Cash Equivalents	• State LGIP 97.6% • U.S. Bank 1.6% • Key Bank 0.7% • Bank of America <0.1%	• U.S. Bank: A-1+/P-1/F1+ • Key Bank: A-2/P-2/F-1 • Bank of America: A-1/P-1/F1+	• 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. • The County slightly decreased its allocation to bank deposits over the quarter, by $2 million, ending December at $14 million. The U.S. Bank account represents 70% of the Pool's bank deposits (Key Bank 28% and Bank of America 3%).

Cash Equivalents Distribution
as of December 31, 2018



Washington State LGIP Sector Distribution
as of December 31, 2018



**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 continues to maintain a well-diversified portfolio by issuer, as shown in the chart below.
- Approximately 65.1% of the portfolio is allocated directly to U.S. government guaranteed or government supported entities.
- Of the remaining 34.9% of the portfolio, 13.0% is allocated to ultra short-term or overnight investment vehicles, including the State LGIP, repurchase agreements, and bank deposits. The remaining 21.9% is allocated to credit issuers, including commercial paper and corporate notes.
- The County added three new issuers to its corporate allocation this quarter; Bank of New York Mello, Honeywell International, and Home Depot Inc., maintaining high credit quality and further increasing issuer diversification.

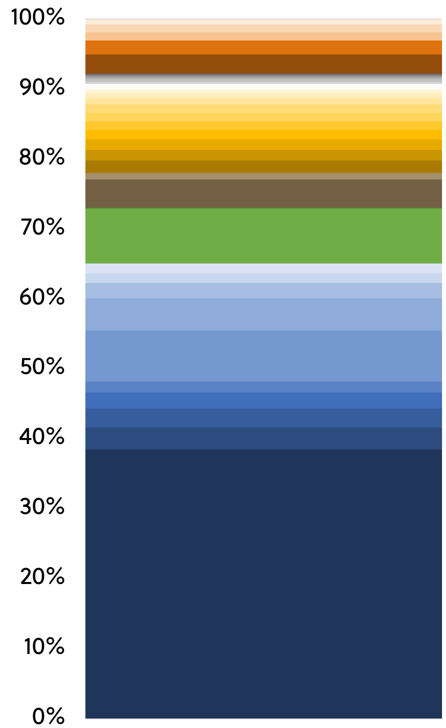
U.S. Treasury (100% Limit)	38.46%

Agency Issuers	Percentage (35% Limit)
FHLB	3.19%
FNMA	2.71%
FFCB	2.31%
FHLMC	1.52%
Intn'l Bk of Recon & Dev	7.28%
Inter-American Dev Bk	4.66%
Euro Bk of Recon & Dev	2.16%
Asian Dev Bank	1.43%
Intn'l Finance Corp	1.36%

Washington State LGIP (25% Limit)	7.89%

Overnight Deposits	Percentage (No Limit)
US Bank	0.13%
Key Bank	0.05%
Bank of America	0.00%

Repo Issuers	Percentage (25% Limit)
BMO Tri-Repo	3.95%
Wells Fargo Tri-Repo	0.95%



Corporate Issuers	Percentage (5% Limit)
Toronto Dominion Bank	1.78%
Microsoft Corp	1.50%
Bank of Montreal	1.47%
US Bank	1.39%
JP Morgan Chase	1.24%
Royal Bank of Canada	1.20%
Bank of Nova Scotia	1.17%
Wells Fargo Bank	1.00%
Bank of New York Mellon	0.67%
Proctor & Gamble Co	0.46%
Apple Inc.	0.45%
PNC Bank	0.43%
Canadian Imperial Bank	0.40%
United Parcel	0.39%
3M Co	0.20%
Walt Disney Co	0.20%
Honeywell International	0.17%
Home Depot Inc.	0.11%

CP Issuers	Percentage (5% Limit)
Merck & Co Inc	2.67%
Canadian Imperial Bank	2.00%
Apple Inc	1.20%
Bank Of Nova Scotia	1.19%
Royal Bank Of Canada	0.66%

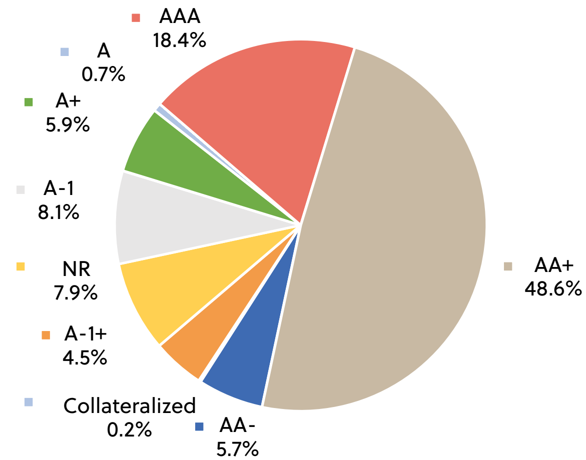
Percentages may not add to 100% due to rounding.
** For the purposes of totaling issuer concentration, issuers are aggregated across all sector types. It is noted however that issuers across sector types may maintain separately rated issuer credits.*

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 discount 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 increased its credit exposure through commercial paper and corporate notes over the quarter, ending at approximately 21.9% of the portfolio, compared to 17.0% last quarter.
  - Commercial paper now accounts for 7.7% of the entire portfolio, while corporate notes account for 14.2%.
- Allocations were maintained to corporate notes for all previously held issuers except for the commercial paper allocation to Toronto Dominion, which matured during the quarter.
  - The portfolio added three corporate issuers; Bank of New York Mellon, Honeywell International, and Home Depot Inc., to its exposure, and three commercial paper issuers; the Bank of Nova Scotia, the Royal Bank of Canada, and Merck & Co.
  - Corporate note allocations held throughout the quarter have ratings of A/A1 or higher.
  - Commercial paper allocations are all rated A-1/P-1 or higher.
- The 7.9% 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, 1.3% 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, 2018



Corporate/CP Issuer Ratings Table
as of December 31, 2018

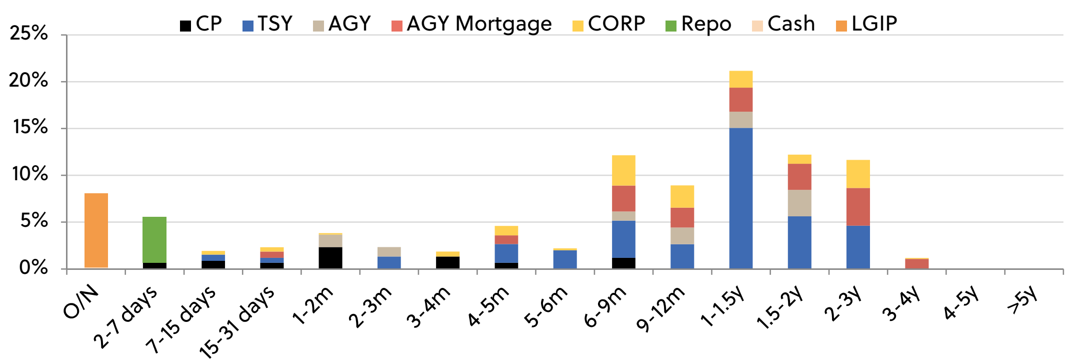
Issuer Distribution	Sectors Invested	S&P Short	S&P Long	Moody's Short	Moody's Long
Toronto Dominion Bank	Corp	A-1+	AA-	P-1	Aa1
Microsoft Corp	Corp	A-1+	AAA	P-1	Aaa
Bank of Montreal	Corp	A-1	A+	P-1	Aa2
US Bank	Corp	A-1+	AA-	P-1	A1
JP Morgan Chase	Corp	A-1	A+	P-1	Aa2
Royal Bank of Canada	Corp/CP	A-1+	AA-	P-1	Aa2
Bank of Nova Scotia	Corp/CP	A-1	A+	P-1	Aa2
Wells Fargo Bank	Corp	A-1	A+	P-1	Aa2
Bank of New York Mellon	Corp	A-1+	AA-	P-1	Aa2
Proctor & Gamble Co	Corp	A-1+	AA-	P-1	Aa3
Apple Inc.	Corp/CP	A-1+	AA+	P-1	Aa1
PNC Bank	Corp	A-1	A	P-1	A2
Canadian Imperial Bank	Corp/CP	A-1	A+	P-1	Aa2
Merck & Co	CP	A-1+	AA	P-1	A1
United Parcel	Corp	A-1	A+	P-1	A1
3M Co	Corp	A-1+	AA-	P-1	A1
Walt Disney Co	Corp	A-1+	A+	P-1	A2
Honeywell International	Corp	A-1	A	P-1	A2
Home Depot Inc.	Corp	A-1	A	P-1	A2

*Ratings by S&P
**Percentages may not add to 100% due to rounding.
*** Source Moody's

V. Maturity Distribution

Maturity Distribution	Observations
Weighted Average Maturity ("WAM")	• The County continues to invest across its permitted maturity range, as seen in the chart below. • A majority of the holdings, 54% of the portfolio, are scheduled to mature or have a call date within the next twelve months, a 2% increase from the previous quarter-end and conservatively above the 40% mandated by the investment policy. • It appears the County's maturity strategies over the past several quarters have included: — Allowing previously purchased, longer-dated U.S. Treasury and federal agency investments to naturally shorten in maturity and roll-down the yield curve. — Targeting purchases in the following spaces: o Higher-yielding commercial paper purchases in place of federal agencies, totaling $502 million this quarter. o High-quality corporate notes with maturities between 2 and 4 years to capture additional yield over similar-dated Treasuries and diversify credit exposure, totaling $71 million. o US Treasury purchases in the shorter-end (less than 2 years) of the curve totaling $264 million in the fourth quarter. • The WAM of the portfolio ended the third quarter at 356 days, down from 386 days at previous quarter-end. — The decrease in portfolio WAM can primarily be attributed to longer-dated Treasury, federal agency, supranational agency and corporate note holdings rolling down the yield curve.
Liquidity	• The County Pool appears to provide adequate liquidity, both in terms of final maturities and the sectors in which the Pool has invested. In addition to the 13.0% (or $1 billion) invested in a combination of the Washington State LGIP, bank deposits, and repurchase agreements (overnight liquidity), another 4.9% of the portfolio's holdings are scheduled to mature within the next thirty-one days.

Maturity Distribution as of December 31, 2018



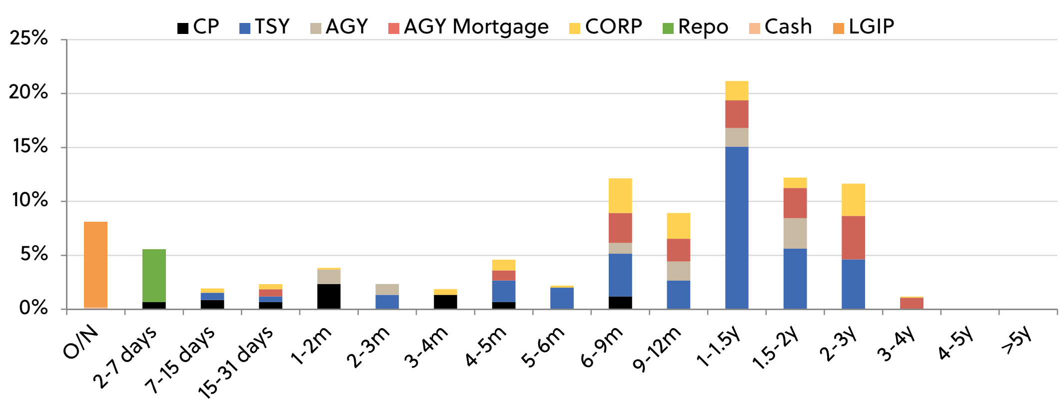
Contribution to Maturity		
Sector	**12/31/18**	**9/30/18**
Supranational Agencies	87.93	102.15
Cash	0.00	0.00
Corporate Notes	60.84	65.64
Commercial Paper	5.47	1.77
Federal Agencies	35.30	43.95
The Washington State LGIP	0.08	0.09
Agency Mortgages	0.74	0.82
Repurchase Agreements	0.10	0.05
US Treasuries	165.71	171.68
Maturity:	**356 days**	**386 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	• 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. • 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.
Duration	• The portfolio's weighted average duration is within the IPS guidelines (no greater than 1.5 years). • As of December 31st, the duration of the County Investment Pool was 0.96 years, an decrease from the previous quarter which ended at 1.03 years. — The decrease in portfolio duration can be attributed to longer-term Treasury and supranational holdings rolling down the curve. • For performance and duration comparison purposes, the portfolio is measured against a blended benchmark consisting of 40% Bank of America Merrill Lynch 3-Month Treasury Index and 60% Bank of America Merrill Lynch 1-3 Year Treasury & Agency Index. — The Pool shortened duration over the quarter from 90% of the benchmark's duration for the third quarter of 2018, to 84% of the benchmark's duration of 1.14 years for the fourth quarter of 2018. — A defensive duration bias helps mitigate the adverse impact that potential interest rate increases may have on market value of holdings when a rise in interest rates is anticipated.

Duration Distribution as of December 31, 2018



Contribution to Duration		
Sector	**12/31/18**	**9/30/18**
Supranational Agencies	0.21	0.27
Cash	0.00	0.00
Corporate Notes	0.14	0.17
Commercial Paper	0.08	0.00
Federal Agencies	0.14	0.12
The Washington State LGIP	0.00	0.00
Agency Mortgages	0.00	0.00
Repurchase Agreements	0.00	0.00
US Treasuries	0.40	0.47
Duration:	**0.96 years**	**1.03 years**

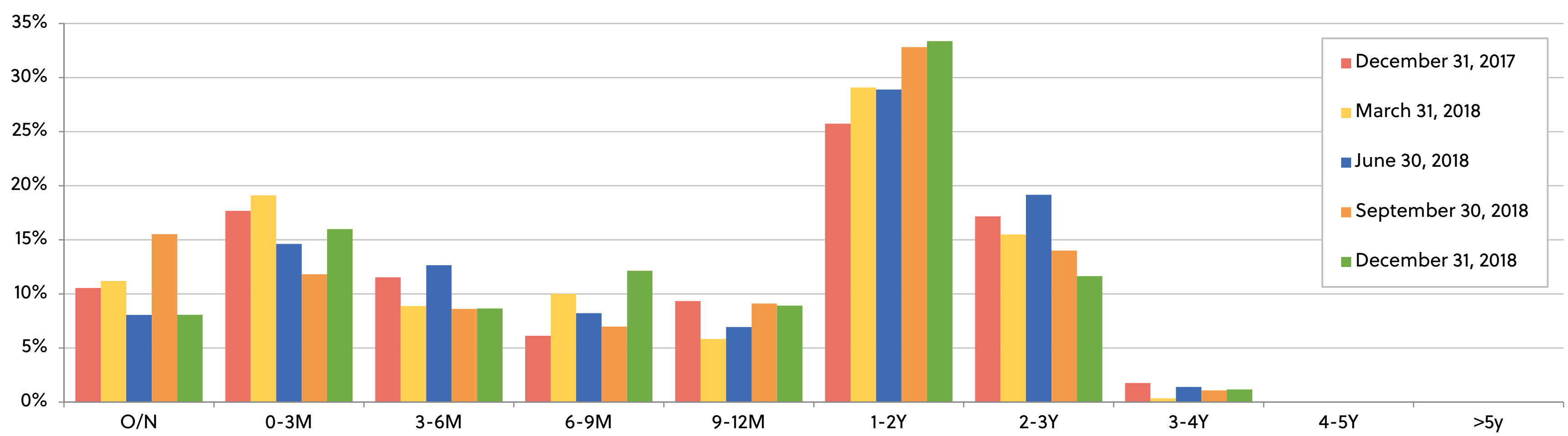
Agency Mortgage durations are shown as effective duration taken from Bloomberg Financial Markets.
Duration for Federal Agency Discount Notes and Repurchase Agreements are calculated as days to maturity. WA LGIP and bank deposits considered to have a one day duration.
All other security durations are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

V. Changes in Portfolio Maturity Distribution

Changes in Portfolio Maturity Distribution

- When viewing the current maturity distribution (green bars) in relation to previous periods, a few primary observations are noted:
  - It appears the County targeted increased allocations in the 0- to 3-month and 6- to 9-month portions of the yield curve during the fourth quarter of 2018.
    - The increase in allocation to 0- to 3-month maturities is due to the addition of Merck & Co commercial paper totaling $200 million, all of which matures in or before February 2019.
    - Increases in the 6-9-month portion of the curve are due to U.S. Treasury bill purchases in the 9-month range, as well as the new Bank of Nova Scotia and Royal Bank of Canada commercial paper holdings in the 6- to 7-month range, and short-term supranational agency additions.
    - Targeting these areas of the curve could offer additional income potential and roll-down opportunities, which add value in a rising rate environment.
- Seasonality of cash flows is critical to maturity distribution and liquidity management and the following is a snapshot of the historical cash flow averages for upcoming quarters.
  - Over the past five years, for the quarters ending March 31, the average net <u>outflow</u> from the Investment Pool was $266 million.
  - Over the past five years, for the quarters ending June 30, the Investment Pool has experienced an average net <u>inflow</u> of $604 million.

Maturity Distribution December 31, 2017 to December 31, 2018



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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