

King County Investment Pool

Portfolio Review

Quarter Ended March 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 December 2017 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 March 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	 The Federal Open Market Committee decided to raise the target range for the federal funds rate to 1½ to 1½ percent. The Committee "expects that economic conditions will evolve in a manner that will warrant gradual increases in the federal funds rate." The Federal Reserve has made clear their intention to raise rates an additional two more times in 2018 as well as reduce their balance sheet holdings. Fed chairman Jerome Powell, appointed in February, plans to maintain strategically transparent changes in interest rates and reduction of Fed's balance sheet. Gross domestic product was revised up to 2.9% for the fourth quarter, only a little slower than last quarter, reflecting positive contributions from consumers and business investment, which were offset by exports and inventories. Growth has averaged 2.6% over the last four quarters. The core personal consumption expenditures (PCE) price index, the Fed's preferred measure of inflation, ticked up modestly to 1.8% year-overyear in February. However, most Fed officials expect that inflation will gradually rise to reach the 2% target over time. Inflation on a 12-month basis is expected to remain somewhat below 2% in the near term but to stabilize over the medium term. The U.S. labor market added 103,000 jobs in March, and an average of 193,000 jobs per month over the past year. The headline unemployment rate remained at 4.1%, the lowest level in more than 16 years. Average hourly earnings – an important gauge of wage growth – grew only 2.7% over the past 12 months. The Eurozone continues to grow at a strong pace with unemployment declining, a rising consumer confidence and global economic growth. Geopolitical risks remain a factor to watch as the trade issues continue to escalate with the U.S. going back and forth with countries on tariffs, especially China.
Observations	 The portfolio is of very high credit quality. The majority of securities (79%) 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 purchases of supranational agencies in the International Finance Corporation, as well as the Asian Development Bank. Due to the increase in the Washington State LGIP, combined with the natural shortening of US Treasury and Agency holdings, the Pool shortened duration over the quarter from 89% of the benchmark's duration for the fourth quarter of 2017, to 84% of the benchmark's duration of 1.13 years for the first quarter. The County Pool appears to provide adequate liquidity, with 12% (or \$791 million) invested in a combination of the State LGIP, bank deposits, and repurchase agreements (overnight) and an additional 10% of the portfolio's holdings scheduled to mature within the next 31 days. In anticipation of the upcoming quarter, during the second quarters of the past five years, the Pool experienced an average net inflow of \$575 million



Investment Pool Portfolio Review

Portfolio Review

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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.

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%	 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: 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 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.	 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 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	 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 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)

Туре	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)

Туре	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

Торіс	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 March 31, 2018 was \$6.4 billion and it experienced a net decrease of approximately \$464 million over the quarter. Over the quarter, sectors that experienced allocation percentage increases included: supranational agencies (+2.69%), the Washington State LGIP (+2.64%) and corporate notes (+1.06%). All sectors experiencing an increase over the quarter still remain within applicable policy limits. Sectors that experienced decreases in quarter-over-quarter allocation percentages included: federal agencies (-4.40%), commercial paper (-0.98%) and repurchase agreements (-0.89%).
Credit Quality	 Approximately 59% of the County pool's assets are guaranteed or supported by the U.S. government. Furthermore, 9% is invested in the State LGIP, where 65% 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 71%. Corporate allocations (both commercial paper and corporate notes) remained steady over the quarter at 20% of the portfolio, and all securities are investment grade. Allocations to corporates continue to be below the maximum allocation limit of 25%. Total allocations of corporates and commercial paper also do not exceed the 50% allocation limit set forth in the County's Investment Policy, and ended the quarter at 20%.
Maturity Distribution	 All maturities fall within the limits set forth in the County's Investment Policy. Approximately 55% of the Pool's assets mature in one year or less, well above the minimum of 40% that is mandated by the Investment Policy.

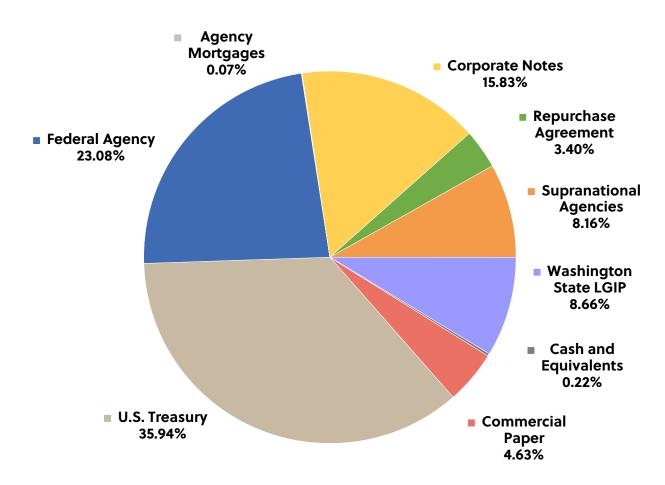
Security Type	Market Value(\$)	Allocation Percentage	Within Policy Limits	Max Maturity Held	Within Policy Limits
U.S. Treasury	2,314,340,200	35.94%	✓	2.84 years	✓
Federal Agency (non-MBS)	1,486,327,985	23.08%	✓	2.64 years	√
Corporate Notes	1,019,307,176	15.83%	✓	3.36 years	✓
Washington State LGIP	557,608,758	8.66%	✓	1 day	√
Supranational Agencies	525,360,700	8.16%	✓	2.81 years	√
Commercial Paper	298,108,834	4.63%	✓	160 days	✓
Repurchase Agreements	219,000,000	3.40%	✓	1 day	✓
Cash and Equivalents	13,905,157	0.22%	✓	1 day	✓
Agency Mortgages	4,678,401	0.07%	✓	2.91 years (WAL)	√
TOTAL	\$6,438,637,212	100.00%			

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



II. Sector Allocation

Sector Diversification as of March 31, 2018





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

Changes in Sector Allocation

- The County's investment pool increased percentage allocations to supranational agencies (+2.69%), the Washington State LGIP (+2.64%) and corporate notes (+1.06%), while decreases occurred in federal agencies (-4.40%), commercial paper (-0.98%) and repurchase agreements (-0.89%).
- U.S. Treasuries During the first guarter U.S. Treasuries decreased by \$173 million. However, due to the substantial decrease in assets within the portfolio, the overall allocation to the sector held steady at 36% over the quarter.
- Federal Agencies Federal agency allocations decreased over the quarter by \$411 million, or -4.40%. Approximately \$439 million of agency holdings • matured during the quarter and \$179 million was reinvested into the sector, particularly \$149 million into supranational agencies.
- Corporate Notes The portfolio increased allocations to corporate notes over the guarter, now accounting for 15.8% of the overall portfolio totaling approximately \$1.0 billion.
- Commercial Paper Commercial paper allocations decreased over the guarter leaving three remaining commercial paper issuers. These holdings account for \$298 million (or 4.6% of the total portfolio), representing a decrease of \$89 million over the quarter.
- Washington State LGIP Balances invested in the State LGIP increased over the quarter by approximately \$142 million, and continued to serve as the Pool's primary liquidity vehicle. This sector accounts for approximately 8.7% of the overall portfolio.
- Repurchase Agreements and Bank Deposits Allocations to repurchase agreements decreased by \$77 million over the quarter and account for 3.4% of the total portfolio. Bank deposits slightly decreased by about \$3 million over the quarter to \$14 million (or to 0.22% of the total portfolio).

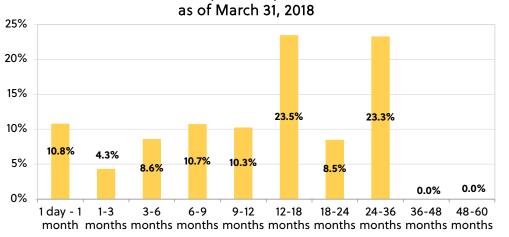
100% -					
80%					
60%					
40%					
20%					
0%					
	March 31, 2017	June 30, 2017	September 30, 2017	December 31, 2017	March 31, 2018
U.S. Treasury	36.23%	37.37%	37.24%	36.03%	35.94%
Federal Agencies	28.34%	29.87%	28.18%	27.49%	23.08%
Agency Mortgages	0.09%	0.08%	0.08%	0.07%	0.07%
Supranational Agencies	0.00%	0.00%	2.26%	5.47%	8.16%
Commercial Paper	5.54%	3.61%	3.36%	5.61%	4.63%
Corporate Notes	16.06%	15.70%	16.28%	14.77%	15.83%
Repurchase Agreements	1.78%	2.67%	3.22%	4.29%	3.40%
Washington State LGIP	10.05%	10.44%	8.95%	6.02%	8.66%
Cash and Equivalents	1.91%	0.26%	0.43%	0.25%	0.22%

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

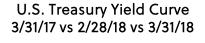


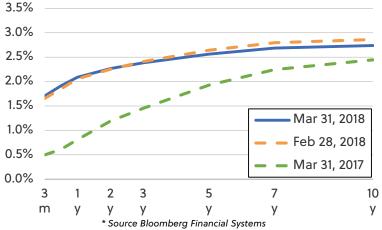
II. Sector Allocation – U.S. Treasury Securities

Торіс	Observations
Observations	 The County's balances held in U.S. Treasuries remained stable over the quarter, at 35.9% of the total portfolio. Treasury yields across the curve ended the quarter higher in anticipation of the well marketed March Federal Funds Rate hike and reduction in the Fed's balance sheet. Short-term yields rose as the Fed continued to raise rates.
	 The yield curve flattened as long-term rates has only slight increases due to muted inflation expectations. The majority of the Pool's Treasury investments (\$936 million, or 59.6% 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. Treasury holdings, totaling approximately \$150, were scheduled to mature on 3/31/18, which offer additional liquidity or an opportunity for reinvestment in the second guarter.
	 The County's weighted average maturity (WAM) of its Treasury allocation decreased over the quarter by 50 days, from 494 days on December 31st, to 444 days on March 31st partially due to holdings maturing on 3/31/18. The chart below, on the left, 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.



U.S. Treasury Maturity Distribution

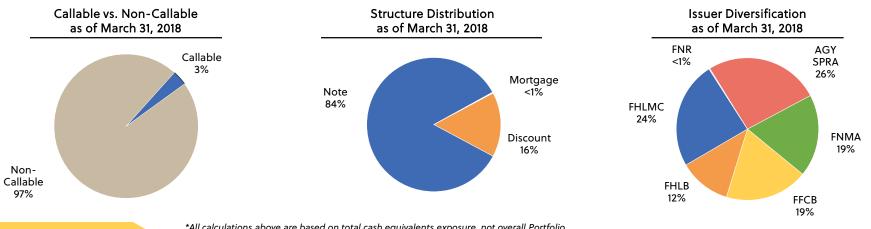






II. Sector Allocation – Federal Agencies

Торіс	Observations			
Structure (as % of Federal Agency Allocations)	Non-CallableCallable	96.7% 3.3%	Discount NotesCoupon Bearing NotesAgency Mortgage	15.6% 84.2% <1%
Diversification (as % of Federal Agency Allocations)	 Freddie Mac (FHLMC) Federal Home Loan Bank (FHLB) Fannie Mae (FNMA) Supranational Agencies 	24.34% 11.8% 18.7% 26.1%	 Federal Farm Credit Bank (FFCB) Freddie Mac Mortgage-Backed (FHR) Fannie Mae Mortgage-Backed (FNR) 	18.9% 0% <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 dollar amount invested in Federal Agencies decreased during the first quarter by \$411 million or 4.4% over the quarter. From a security structure standpoint (the ratio of non-callable to callable securities), callable securities account for 3.3% of agency holdings. In the past quarter, the only two callable holdings experienced a call date, neither of which appeared to be called. One of these holdings is still callable and the next call date is in April 2018. New agency purchases during the quarter were all non-callable. The County Pool's only remaining allocation to agency mortgages is in Fannie Mae pools, totaling approximately \$4.7 million. Increases were also made to supranational holdings, up by 2.7% over the quarter, or \$148 million. 			



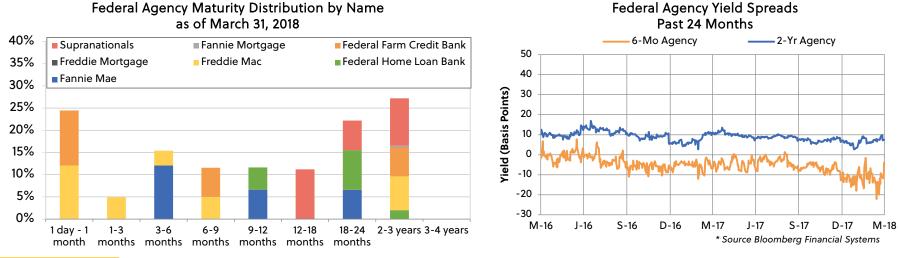
*All calculations above are based on total cash equivalents exposure, not overall Portfolio. **Percentages may not total to 100% due to rounding.

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II. Sector Allocation – Federal Agencies

Торіс	Observations
Maturity	• The County's federal agency maturity distribution falls within the limits set forth by the Investment Policy Statement.
Distribution	• Over the quarter, the County's weighted average maturity (WAM) of federal agency holdings increased by 2 days, from 391 days on December 31st to 393 days on March 31st.
	 The County prefers short-term federal agencies. This is evident by, as of December 31, 2017, 56% of agency allocations being invested in maturities less than 12 months, which continued for this quarter with 68.0% of agency holdings maturing within the next year. Of the agency and U.S. Treasury allocations invested in maturities under a year, 44.8% of federal agency allocations and 19.4% of U.S. Treasury allocations were invested in maturities less than 6 months.
	- Conversely, while 32.0% of agency allocations were invested beyond 1 year, 59.6% of Treasury allocations were invested beyond 1 year.
	 Agency spreads remain tight so while value exists in price concessions when new issues are first traded, the supranational sector offers additional income benefit relative to both Treasury and agency securities.
	 The overweight to shorter-term agencies can be attributed to previously purchased longer-term agencies being held and naturally drifting shorter.
	- When yields of federal agencies and Treasuries are relatively close, the U.S. Treasury security is typically preferred.



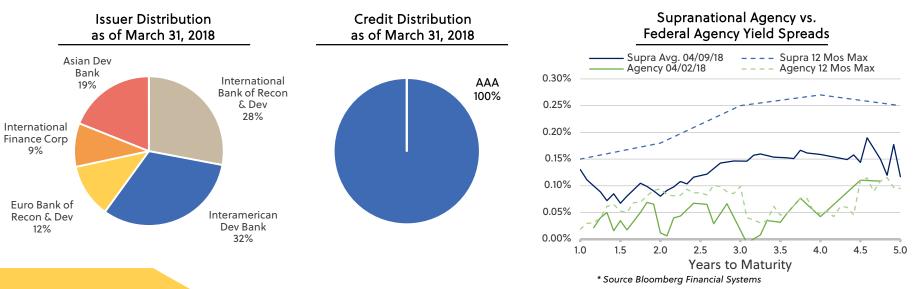
• Agency Mortgage maturities are calculated as average life. Average life data taken from Bloomberg Financial Markets

- Callable securities are shown to their next call date.
- All other Agency maturities are calculated as days to maturity.



II. Sector Allocation – Supranational Agencies

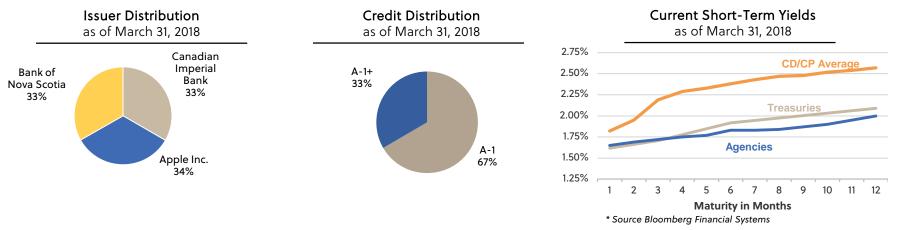
Торіс	Observations
Credit Distribution	• The County purchased additional Supranational Agency holdings during the first quarter. These holdings are of high credit quality, being backed by various member countries and are created in order to support economic development and poverty reduction.
	 The County added two additional Supranational issuers over the quarter, the International Finance Corporation and the Asian Development Bank, both rated AAA by Standard & Poor's.
	 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 new sector, the County is able to diversify the portfolio and add to its high credit quality.
	 One Supranational purchase matures in 3 months, whereas the second new holding matures in the 2.5- to 3-year range.
Spread to Agency rates	 The chart on the right shows the spread between supranational agencies and federal agency securities. Supranational agencies remain a strong alternative to both comparable maturity Treasuries and federal agencies. With the seasonality of elevated supranational supply slowing after the first quarter, current yield spreads shown below are attractive.





II. Sector Allocation – Commercial Paper

Торіс	Observations
Issuer Diversification	 The County's allocation to commercial paper decreased over the quarter, by approximately \$89 million, and now accounts for 4.6% of the total portfolio, down from 5.6% at the end of the fourth quarter.
	• The portfolio maintained allocations in three commercial paper issuers during the quarter: Apple Inc, Canadian Imperial Bank, and the Bank of Nova Scotia.
	• The incremental yield offered by commercial paper is now modest but continues to outperform compared to similar term government securities.
	 "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. as A-1+, and Bank of Nova Scotia and Canadian Imperial Bank each as A-1.
	 Moody's rates the short-term credit of all of the County's CP issuers as P-1.
Conclusions	 High-quality commercial paper has offered a noticeable yield advantage relative to similar maturity Treasury and agency securities over the past several years. This yield advantage of commercial paper is even more pronounced at longer maturities and has grown with regulatory changes to money market mutual funds.
	• 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.



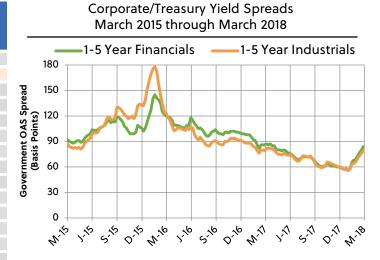
*All calculations above are based on total cash equivalents exposure, not overall Portfolio. **Percentages may not total to 100% due to rounding.



II. Sector Allocation – Corporate Notes

Торіс	Observations
Maturity Distribution	 The County increased allocations over the quarter to high-quality corporate notes. This sector accounts for 15.8% of the overall portfolio totaling approximately \$1.0 billion. When viewing the County's corporate note holdings to the next call date, the weighted average maturity of these investments is 1.2 years. Of the County's total allocation to this sector, 60% is held in maturities beyond 1 year, down from 72% last quarter, mainly due to natural shortening of corporate holdings.
lssuer Limitations	 On May 10, 2017 Moody's Investors Service downgraded the long-term credit ratings of six Canadian banks and their affiliates, reflecting Moody's expectation of a more challenging operating environment for banks in Canada for the rest of 2017 and thereafter, which could lead to deterioration in their asset quality and an increase sensitivity to external shocks. ** Investments in issuers rated in the broad single A category are restricted, per the investment policy, to a maximum of 2% per issuer, putting Royal Bank of Canada just slightly over the policy limit per the new Moody's downgrade, highlighted below. However, since all RBC notes were purchased prior to 9/15/16, they are grandfathered for purposes of issuer limits and can be held to maturity.

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	Aa2	15.41%	2.44%
Royal Bank of Canada	A-1+	AA-	P-1	A1	13.60%	2.15%
Microsoft Corp	A-1+	AAA	P-1	Aaa	11.57%	1.83%
US Bank	A-1+	AA-	P-1	A1	10.20%	1.61%
PNC Bank	A-1	А	P-1	A2	9.23%	1.46%
Bank of Montreal	A-1	A+	P-1	A1	8.36%	1.32%
Wells Fargo Bank	A-1	A+	P-1	Aa1	7.27%	1.15%
Proctor & Gamble Co	A-1+	AA-	P-1	Aa3	5.35%	0.85%
Bank of Nova Scotia	A-1	A+	P-1	A1	4.39%	0.69%
JP Morgan Chase	A-1	A+	P-1	Aa3	4.15%	0.66%
Apple Inc.	A-1+	AA+	P-1	Aa1	3.28%	0.52%
Canadian Imperial Bank	A-1	A+	P-1	A1	2.89%	0.46%
Colgate-Palmolive Co	A-1+	AA-	P-1	Aa3	2.85%	0.45%
Walt Disney Co	A-1+	A+	P-1	A2	1.45%	0.23%

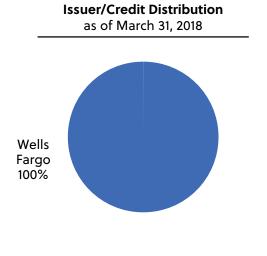


* Source Bloomberg Financial Systems

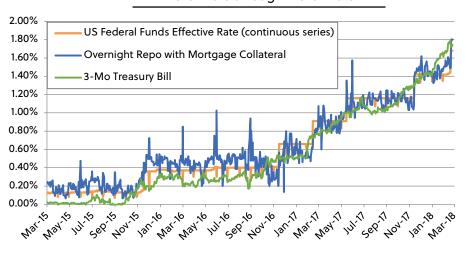


II. Sector Allocation – Repurchase Agreements

Торіс	Observations
lssuer Diversification	 The County has been increasing tri-party repurchase agreement exposure over the past year and ended March with 3.4% of the portfolio allocated to the sector, down from 4.3% in December. The portfolio utilizes one repo counterparty, Wells Fargo Bank, with an allocation of \$219 million on March 31, 2018, down \$77 million from the previous quarter-end. This allocation falls within the permitted investment guidelines of 25% per issuer and 100% maximum to the sector.
Credit Distribution	 Standard & Poor's rates Wells Fargo's short-term issuer credit as A-1. While Wells Fargo maintains very high-quality ratings from S&P, the ultimate quality of the repurchase agreement depends on the underlying collateral.
Conclusions	 Similar to the past few quarters, the County continues to utilize just one repo counterparty holding, Wells Fargo. As of March 31, 2018, the repurchase agreement yield was 1.80%, which is an additional 41 bps over last quarter.



Short-Term Yields March 2015 through March 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 33.7% Federal Agencies 31.4% Supra National Agencies 3.7% Repurchase Agreements 21.2% Certificates of Deposit 1.1% Cash Equivalents 9.0% As of March 31, 2018 	• N/A	 The County currently has allocated \$558 million to the Washington State LGIP, which is an increase of approximately \$142 million over 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 decreased holdings of repurchase agreements (down 4.6%), as well as Supranational agency holdings (down 2.4%) and increased agency discount notes by 2.1%. All other sectors experienced modest 0-1% changes in percentage allocations over the quarter.
Cash Equivalents	 State LGIP 97.6% U.S. Bank 1.9% Key Bank 0.5% Bank of America 0.1% 	 <u>U.S. Bank:</u> A-1+/P-1/F1+ <u>Key Bank:</u> A-2/P-2/F-1 <u>Bank of America:</u> A-2/P-2/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 \$3 million, ending March at \$14 million. The U.S. Bank account represents 77% of the Pool's bank deposits (Key Bank 20% and Bank of America 3%). Additionally, while the County pool is limited to CDs issued by banks in the State of Washington, there still may be an opportunity to add small allocations to CDs, as this sector continues to provide incremental yield advantages relative to many shorter-term investment options of similar maturity.



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_**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 is evidenced by the chart below.

- Approximately 67.2% of the portfolio is allocated directly to U.S. government guaranteed or government supported entities.
- Of the remaining 32.8% of the portfolio, 12.3% is allocated to ultra short-term or overnight investment vehicles, including the State LGIP, repurchase agreements, and bank deposits. The remaining 20.5% is allocated to credit issuers, including commercial paper and corporate notes.
- The County continued to diversify its supranational issuers over the quarter with purchases of the International Finance Corporation and the Asian Development Bank.

Issuer Distribution	Value	Percentage	Issuer Limit	
			100%	Wells Fargo Royal Bank US Bank Apple Inc
Treasury	2,314,340,200	35.94%	25%	Bank (O/N of Canada 1.78% 2.07% 🗖 Canadian Imperial Bank
Washington State LGIP	557,608,758	8.66%		repo) 2.15% 2.00%
FHLMC	490,880,840	7.62%	35%	3 70%
FNMA	381,522,349	5.93%	35%	■ FNMA 1.83%
FFCB	380,625,498	5.91%	35%	5.93%
FHLB	237,977,700	3.70%	35%	2.23%
Wells Fargo Bank (O/N repo)	219,000,000	3.40%	25%	FHLMC 7.62% Toronto Dominion Bank
Interamerica Develop Bk	168,038,836	2.61%	35%	2.44%
Toronto Dominion Bank	157,046,202	2.44%	5%	■ FFCB
Intn'l Bank of Recon & Dev	147,071,000	2.28%	35%	5.91%
Bank of Nova Scotia	143,797,367	2.23%	5%	Washington
Royal Bank of Canada	138,599,900	2.15%	5%	State LGIP 8.66% 1.15%
Apple Inc	133,082,939	2.07%	5%	Bank of Montreal
Canadian Imperial Bank	128,887,250	2.00%	5%	L Treasury 1 32%
Microsoft	117,932,870	1.83%	5%	35.94%
US Bank	114,682,517	1.78%	5%	International Walt Disney Co 0.23%
International Finance Corp	99,558,056	1.55%	35%	Finance
PNC Bank	94,118,834	1.46%	5%	Corp 1.55%
Bank of Montreal	85,188,032	1.32%	5%	
Wells Fargo Bank (non-O/N repo)	74,149,500	1.15%	5%	Asian Dev Bank O 77% Bank of America O.01%
Euro Bk of Recon & Dev	61,112,309	0.95%	35%	
Procter & Gamble	54,531,700	0.85%	5%	Euro Bk of JP Morgan Chase
Asian Dev Bank	49,580,500	0.77%	35%	Recon & Dev 0.66%
JP Morgan Chase	42,328,736	0.66%	5%	0.95% Colgate Palmolive Co
Colgate Palmolive Co	29,036,330	0.45%	5%	0.45%
Walt Disney Co	14,788,350	0.23%	5%	2 61% Intri Bank of L Key Bank
Key Bank	2,822,338	0.04%	5%	Recon & Dev 0.04% 0.85%
Total	\$6,438,637,212	100.00%		2.28%

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

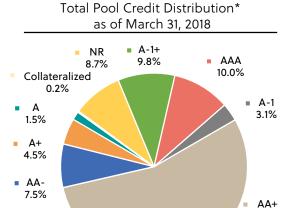
noted however that issuers across sector types may maintain separately rated issuer credits.



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 maintained its credit exposure through commercial paper and corporate notes over the quarter, ending at approximately 20.5% of the portfolio.
 - Commercial paper now accounts for 4.6% of the entire portfolio, while corporate notes account for 15.8%.
- Allocations were maintained to corporate notes for all previously held issuers and commercial paper allocations were maintained for Canadian Imperial Bank, Bank of Nova Scotia, and Apple Inc.
 - No new commercial paper or corporate issuers were added during the first quarter.
 - 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.
- On May 10, 2017 Moody's Investors Service downgraded the long-term credit ratings
 of six Canadian banks and their affiliates, reflecting Moody's expectation of a more
 challenging operating environment for banks in Canada for the rest of 2017 and
 thereafter, which could lead to deterioration in their asset quality and an increase
 sensitivity to external shocks. **
 - Investments in issuers rated in the broad single A category are restricted, per the investment policy, to a maximum of 2% per issuer, putting Royal Bank of Canada just slightly over the policy limit per the new Moody's downgrade.
 - However, since all RBC notes were purchased prior to 9/15/16, they are grandfathered for purposes of issuer limits and can be held to maturity.
- The 8.7% 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, 1.9% of the County's Pool is allocated indirectly to corporate securities (repurchase agreements and certificates of deposit).



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

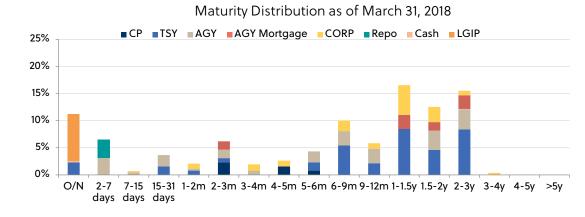
54.7%

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	Aa2
Royal Bank of Canada	Corp	A-1+	AA-	P-1	A1
Microsoft Corp	Corp	A-1+	AAA	P-1	Aaa
US Bank	Corp	A-1+	AA-	P-1	A1
PNC Bank	Corp	A-1	А	P-1	A2
Bank of Montreal	Corp	A-1	A+	P-1	A1
Wells Fargo Bank	Corp	A-1	A+	P-1	Aa1
Proctor & Gamble Co	Corp	A-1+	AA-	P-1	Aa3
Bank of Nova Scotia	Corp/CP	A-1	A+	P-1	A1
JP Morgan Chase	Corp	A-1	A+	P-1	Aa3
Apple Inc.	Corp/CP	A-1+	AA+	P-1	Aa1
Canadian Imperial Bank	Corp/CP	A-1	A+	P-1	A1
Colgate-Palmolive Co	Corp	A-1+	AA-	P-1	Aa3
Walt Disney Co	Corp	A-1+	A+	P-1	A2



V. Maturity Distribution

Maturity Distribution	Observations
Weighted Average Maturity ("WAM")	 The County continues to diversify holdings across its permitted maturity range, as seen in the chart below. A majority of the holdings - 55% of the portfolio - are scheduled to mature or have a call date within the next twelve months, in line with the previous quarter-end and well 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, federal agency, and corporate note investments to naturally shorten in maturity and roll-down the yield curve. Targeting purchases in the following spaces: Supranational agencies totaling \$149 million in the 3-month and 2.5-3-year range, as well as \$30 million of Federal Agency purchases in the 2-year maturity range. US Treasury purchases targeting the 1-1.5 year maturity range totaling \$49 million. The WAM of the portfolio ended the first quarter at 354 days, down from 378 days at previous quarter-end. The decrease in portfolio WAM can primarily be attributed to \$150 million in US Treasury holdings set to mature on 3/31/18, as well as the natural shortening of Federal agency holdings.
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 12.3% (or \$791 million) invested in a combination of the Washington State LGIP, bank deposits, and repurchase agreements (overnight liquidity), 9.8% of the portfolio's holdings are scheduled to mature within the next thirty-one days.



Contribution to Maturity				
Sector	3/31/18	12/31/17		
Supranational Agencies	58.17	37.55		
Cash	0.00	0.00		
Corporate Notes	65.79	68.90		
Commercial Paper	4.95	1.90		
Federal Agencies	64.02	90.58		
The Washington State LGIP	0.09	0.06		
Agency Mortgages	0.77	1.07		
Repurchase Agreements	0.10	0.04		
US Treasuries	159.70	178.10		
Maturity:	354 days	378 days		

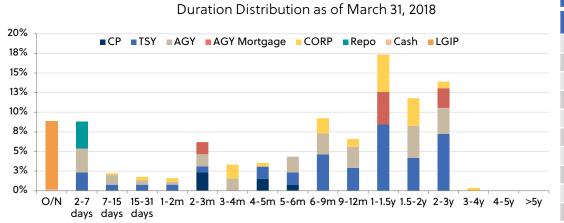
Agency Mortgage maturities are reported as average life. Average life data taken from Bloomberg Financial Markets Callable securities shown to their call date.

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 March 31st, the duration of the County Investment Pool was 0.94 years, a decrease from the previous quarter which ended at 1.01 years. The decrease in portfolio duration can be attributed to the natural roll-down of Federal agency holdings, paired with US Treasury holdings set to mature on 3/31/18. 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. Due to the increase in the 0- to 3-month range, the Pool shortened duration over the quarter from 89% of the benchmark's duration for the fourth quarter of 2017, to 84% of the benchmark's duration of 1.13 years for the first quarter of 2018. In anticipation of continued rising rates, a more defensive duration bias helps mitigate the adverse impact that potential interest rate increases may have on market value.



Contribution to Duration				
Sector	3/31/18	12/31/17		
Supranational Agencies	0.15	0.10		
Cash	0.00	0.00		
Corporate Notes	0.18	0.18		
Commercial Paper	0.01	0.01		
Federal Agencies	0.17	0.25		
The Washington State LGIP	0.00	0.00		
Agency Mortgages	0.00	0.00		
Repurchase Agreements	0.00	0.00		
US Treasuries	0.43	0.47		
Duration:	0.94 years	1.01 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.

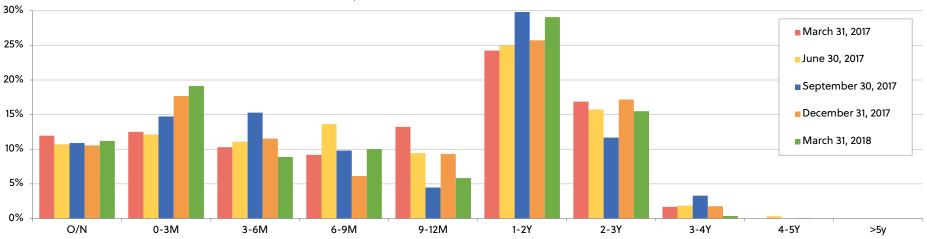
All other security durations are calculated as effective duration as given by Bloomberg Financial Markets.



V. Changes in Portfolio Maturity Distribution

Changes in Portfolio	• When viewing the current maturity distribution (green bars) in relation to previous periods, a few primary observations are noted:			
Maturity Distribution	 It appears the County targeted increased allocations in the 0- to 3-month and 1- to 2-year portion of the yield curve during the first quarter of 2018. 			
	 0- to 3-month allocations increased over the quarter due the roll-down of agency holdings, along with \$149 in US Treasury holdings set to mature on 3/31/18 and \$100 million in supranational agencies purchases maturing in 3 months. 			
	o The increase in allocations to the 6- to 9-month range is due to naturally shortening of the portfolio.			
	o Separately, increases to the 1- to 2-year maturity range are due to new purchases of US Treasury and agency holdings.			
	 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 June 30, the Investment Pool has experienced an average net inflow of \$575 million. 			
	Over the past five years, for the guarters ending September 30, the average net outflow from the Investment Pool was \$279			





Maturity Distribution March 31, 2017 to March 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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