

Tri-County Metropolitan Transportation District of Oregon

Senior Lien Payroll Tax Revenue Bonds

Series 2018A



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Tri-County Metropolitan Transportation District of Oregon Senior Lien Payroll Tax Revenue Bonds Series 2018A

Executive Summary

Kroll Bond Rating Agency (KBRA) has taken the following rating action with respect to the Tri-County Metropolitan Transportation District of Oregon (“TriMet”):

Ratings			
Issuer: Tri-County Metropolitan Transportation District of Oregon			
Series/Bond	Rating	Outlook	Action
Senior Lien Payroll Tax Revenue Bonds Series 2018A	AAA	Stable	Assigned
Senior Lien Payroll Tax Revenue Bonds	AAA	Stable	Assigned

KBRA’s long-term ratings do not apply to bonds backed by a letter of credit or liquidity facility, unless otherwise noted.

Methodology

This rating is based on KBRA’s [U.S. Special Tax Revenue Bond Rating Methodology](#). The rating determinants, as well as KBRA’s corresponding rating determinant ratings for the payroll tax bonds, are summarized below:

- Legal Framework: AAA
- Nature of Special Tax Revenues: AAA
- Economic Base and Demographics: AAA
- Revenue Analysis: AA+
- Coverage and Bond Structure: AAA

Security

The Bonds are payable from and secured by a first lien on the trust estate, which includes specified tax revenues and funds and investments on deposit in the debt service account. Specified tax revenues consist of employer payroll taxes and self-employment taxes, and payments received from the State of Oregon (the “State”) in-lieu of taxes on payrolls for State workers employed within the district. In the event of a debt service account insufficiency, the bonds are payable from any lawfully available funds of TriMet. The specified tax revenues are collected by the State and deposited directly with the bond trustee.

Use of Proceeds

Bond proceeds will be used to finance to costs of certain transit-related capital projects, including bus and light rail vehicle replacement and bus/garage facility rehabilitation.

Key Rating Strengths

- Pledged revenues provide very ample 10.83x coverage of pro forma maximum annual debt service (MADS) requirement.
- Sizable, diverse and growing metropolitan area that serves as economic engine for the State.
- Gross revenue pledge with payroll taxes collected by State and remitted directly to Trustee.
- Highly resilient pledged revenue base with only three years of modest declines recorded since 1990.
- Strong 4.00x MADS additional bonds test (ABT) requirement. Pledged revenues account for about 60% of TriMet operating sources, which further lessens potential for overleveraging.



- State authorization of payroll tax rate increases provides additional support for debt repayment and operations; electorate approval not required.

Key Rating Concerns

- Potential for significant additional debt issuance that would sharply increase outstanding Senior Lien Payroll Tax Revenue Bond indebtedness.

Rating Summary

TriMet was established in 1969 as an Oregon municipal corporation and is responsible for bus, light rail, and commuter rail services to the more populous parts of Multnomah, Washington, and Clackamas Counties within metropolitan Portland. The service area is 533 square miles with a population of 1.6 million (combined counties population 1.8 million in 2017) that includes the Cities of Portland, Gresham, and Beaverton ("District"). TriMet can issue general obligation bonds, following an affirmative electorate vote, and revenue bonds. No general obligation bonds have been issued, to date. TriMet has imposed employer payroll and self-employment taxes, which are critical funding components for both capital and operations and provides healthy coverage of debt service requirements for the currently offered senior lien payroll revenue bonds and outstanding parity debt.

KBRA believes that coordinated mass transit is vital to the functioning of the Greater Portland area, the nation's 25th largest metropolitan area, and views TriMet's objectives to provide automobile alternatives, reduce air pollution, and deliver service to residents and employees, including seniors and persons with disabilities, as aspirational goals for any large municipality.

TriMet has a comprehensive set of policies and procedures that guide its operations. Policy is set by a seven-member board of directors, who are appointed to four-year overlapping terms by the governor and confirmed by the Oregon Senate. Each board member represents a district. The rolling five-year business plan informs both the operating and capital budgets. Debt management and financial policies have been approved by the Board. Projected debt service is limited to 6% of continuing unrestricted revenues. Bond issues must be structured to mature within 35 years. A budgeted contingency is required to be 3% of total operating requirements, and unrestricted fund balance is to be maintained at a minimum of 2.5 times the appropriated average monthly operating expenditures for the upcoming fiscal year.

The Bonds are payable solely from specified tax revenues, which mainly consist of employer payroll taxes and self-employment taxes. Imposition and adjustment of these revenues is not subject to voter authorization. The specified tax revenues are authorized under statute and permission for TriMet to increase the rate is granted through State legislative action. TriMet's most recent rate increase authorization was granted in 2009 and was not initially imposed until 2016. The current rate is 0.7537% or \$7.537 per \$1,000 of employer payroll, and TriMet is in the midst of a 10-year 0.1% increase (0.01% annually) that will conclude on January 1, 2025. Taxes are collected by the State and remitted to the Trustee to be applied to debt service, before being released to TriMet for operations. KBRA considers this to be a strong practice that effectively insulates bond repayment from TriMet operations. Historical debt service coverage has been ample, and margins have grown. Coverage by FY 2017 pledged revenues (\$336.1 million) was 14.0x, and MADS coverage, including the current offering is 10.83x.

KBRA believes the extremely strong 4.0x ABT offsets any unease related to the absence of a rate covenant. In addition, specified tax revenues are a crucial funding source for TriMet operations, comprising 57% of revenues in FY 2017. Therefore, KBRA views it as unlikely that TriMet would act to overleverage this source. The 2018A Bonds and all outstanding parity bonds are not secured by a debt service reserve fund. KBRA is

comfortable with no reserve, given pledged revenue performance, abundant debt service coverage and the strength of the ABT.

In KBRA's opinion, the payroll tax represents an extremely reliable revenue source, which we view as much less volatile than the sales tax, and somewhat insulated from economic downturns. Since 1990, there have been only three year-over-year declines in specified tax revenues, the largest of which was 2.9% in 2002. In 2009, during the Great Recession, unemployment rates reached double-digit levels in Multnomah and Clackamas County, yet payroll tax collections, mainly due to self-employment tax performance, declined by only 2.6%. Since 2009, pledged revenues have increased at a compound annual growth rate (CAGR) of 6.3%. There is an element of concentration in the employer payroll base as the largest payroll tax generator accounts for about 8% of pledged revenues and the top ten represent 21%. However, several of these employers are healthcare or public-sector entities, which at times are subject to employment level fluctuation, but job numbers on balance tend to remain in a narrow range.

In KBRA's view, the underlying diverse and growing economic base of the tri-county area provides a healthy basis for the generation of specified tax revenues. The varied economy contains manufacturing, trade, high technology, services, tourism and government sectors, and accounts for approximately 53% of the State's employment. TriMet's boundaries encompass a rising population of about 1.6 million, representing 39% of the State's population. The region has rebounded well from the Great Recession, when in 2009, the annual unemployment rate for both Multnomah and Clackamas Counties exceeded 10%. As of February 2018, the unemployment rates were 3.7% and 3.5%, respectively. As referenced earlier, elevated unemployment rates have not dampened payroll tax collections significantly. Per capita personal income is well above State and national averages. The three TriMet counties rank second through four among Oregon counties with highest per capita personal income.

Following delivery of the Series 2018A Bonds, outstanding senior lien payable tax revenue bonds will total approximately \$467 million. Current plans call for the issuance of \$300 million in additional parity bonds between FY 2019 and FY 2026 as part of TriMet's current five-year capital improvement program. All outstanding and planned payroll tax revenue bonds are in the form of fixed rate obligations.

KBRA modeled several scenarios under which assumptions were made regarding pledged specified tax revenues. KBRA also factored in the expected borrowing over the next five years to determine the impact on debt service coverage. Under each alternative, pledged revenues continued to provide ample coverage. Please see "Rating Determinant 5: Coverage and Bonds Structure" for additional information.

Outlook: Stable

The Stable Outlook reflects KBRA's expectation that the pledged payroll and self-employee tax revenue source will continue its historical growth trend and additional debt will be accommodated while coverage remains broad.

In KBRA's view the following factors may contribute to a rating downgrade:

- Significant economic restructuring within TriMet boundaries that results in sharp reduction in pledged payroll taxes and debt service coverage
- Adoption of voter initiative that results in large reduction in employer tax and self-employment tax rates

Rating Determinants

Rating Determinant 1: Legal Framework

Payroll Tax Authorization and Application

KBRA views the legal framework under which the payroll tax revenue bonds are issued as providing strong bondholder security. The Bonds are issued pursuant to Oregon Revised Statutes ("ORS") Chapter 267, ORS Chapter 287A and related provisions of the laws of the State, which addresses the establishment of a mass transit district in an Oregon metropolitan area, the imposition of employer payroll and self-employment taxes, and the authority to issue revenue bonds. TriMet was formed in 1969 to provide transportation services to the Portland, Oregon metropolitan area. The Oregon Legislature initially imposed a payroll and self-employment tax rate at 0.3% (\$3.00 per \$1,000 of employer payroll), effective 1970, which has risen in the interim to the current 0.7537% (\$7.537 per \$1,000) for collection within TriMet boundaries. Beginning in 2010, the collected tax was expanded to include 0.6% in-lieu payments from the State for its employees within the TriMet District. These three sources comprise specified tax revenues, with payroll taxes representing 94.6%, self-employment taxes accounting for 4.8%, and State in-lieu payments making up the balance. The in-lieu payments are fixed, and the other two sources have increased over the years by Legislative Assembly action. Under Oregon law, TriMet needs statutory authorization from the Legislative Assembly to adjust payroll and self-employment tax rates. In 2003 and 2009 authority was conferred to increase tax rates by 0.1% (\$1.00 per \$1,000 over a ten-year period). TriMet began to implement the 2009 authorization on January 1, 2016. The current 0.7537% rate will rise to 0.8237% (\$8.237 per \$1,000 payroll) on January 1, 2025.

Collection of the employer payroll tax and self-employment tax are administered by the Oregon Department of Revenue, which imposed a 0.74% charge for administrative costs applied to the total collected. For most employers, the payroll tax is paid with their quarterly State income tax withholding payments, while the self-employment tax is due annually (mainly April 15th) and reported separately from State income tax.

Under Oregon law small cities with less than 10,000 population and unincorporated areas can petition for withdrawal from TriMet. KBRA views these withdrawals as not having any impact on operations. To date, there have been only three withdrawals that involved a very modest amount of employer payroll taxes. KBRA derives comfort from State law that requires the lost revenue to be recaptured by the triggering of an automatic payroll and self-employment tax rate increase on the remaining TriMet region designed to generate the same revenues TriMet would have received if the withdrawal had not occurred.

Under the Oregon Constitution, voters in the TriMet District have the power to seek adoption of initiative and referenda that potentially could affect collection of the specified tax revenues. Local measures can be referred to a vote following the submission of a petition with signatures from a minimum number of TriMet voters. The required number of signatures is based upon the number of TriMet voters who voted in the last regular Gubernatorial election and is set at 4% (current about 32,300 signatures) for regular ordinances and 6% (currently 48,400 signatures) for initiatives. To date, no such filing has taken place and the process creates a high hurdle to adoption.

Flow of Funds

The Indenture provides that the State remit gross specified tax revenues, less the administrative fee, to the revenue fund held by the trustee. The Trustee is required to make weekly deposits to the debt service account on the last business day of each week. This date is referred to as the settlement date. If on seven days prior to the interest and/or principal date, the Trustee determines that funds are insufficient to make

required payments, the trustee notifies TriMet, which is required to offset the deficiency from legally available funds at least two days before the payment date. Since the specified tax revenues are critical to TriMet operations and the restrictive ABT places limitations on bond issuance, KBRA believes the potential for such a situation is remote.

Specified tax revenues held by the trustee in excess of debt service requirements on the Senior Lien Payroll Tax Bonds are then deposited into the interest account for outstanding Series 2013 full funding grant agreement (“FFGA”) bonds, which have a subordinate lien on pledged revenues, before being remitted to TriMet. Once remitted to TriMet, these funds are no longer subject to the lien and pledge of the Indenture and may be used for any lawful TriMet purposes.

Nature and Strength of Pledge

The Series 2018A Bonds are being issued pursuant to the trust indenture, dated as of April 1, 2001, as amended and supplemented, and the ninth supplemental indenture, and are secured by a gross pledge of specified tax revenues less administrative expenses, plus amounts held by the trustee in the debt service account under the indenture. In the event of an insufficiency in pledged funds or debt service account deposits, then TriMet is required to draw on any of its legally available funds. As referenced above, senior lien payroll tax bonds do not have a lien on and are not secured by revenues released by the trustee and used to pay interest on 2013 FFGA bonds or transferred to TriMet to be used for any lawful purposes of TriMet.

Lien Structure

The Series 2018A Bonds are being issued on a parity with TriMet’s seven series of Senior Lien Payroll Tax Revenue Bonds outstanding in the principal amount of approximately \$323 million as of May 1, 2018. In addition, there is one series of payroll tax and grant receipt revenue bonds, Series 2013, outstanding in the principal amount of \$125 million as of May 1, 2018. These bonds are payable by a first lien on amounts received under a full funding grant agreement between TriMet and the Federal Transit Administration, and a second lien on the specified tax revenues. TriMet also has three series of capital grant receipt revenue bonds, currently outstanding in the principal amount of approximately \$232 million as of May 1, 2018. The capital grant bonds are not secured by specified tax revenues and are payable solely from federal grant funds payable to TriMet.

Debt Service Reserve Fund

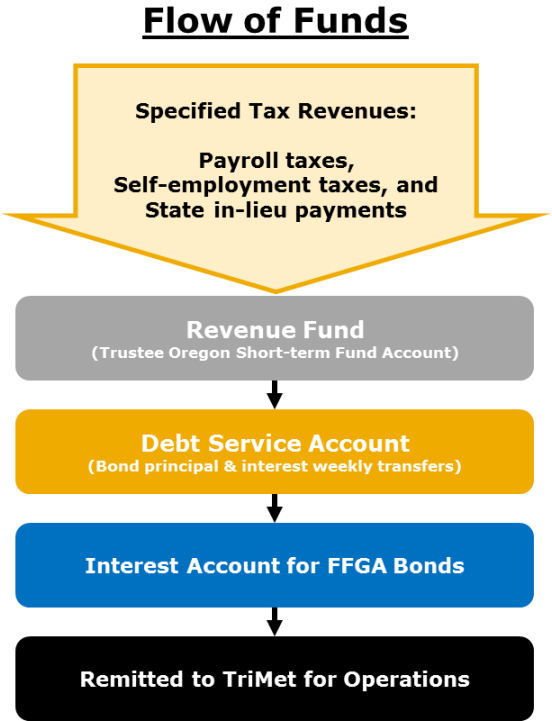
There is no reserve requirement for the senior lien payroll tax revenue bonds

Additional Bonds Test

Additional issuance of senior lien payroll tax revenue bonds requires a certificate prepared by a qualified consultant showing that specified tax revenues for 12 consecutive months during the 18 months immediately preceding the issuance of additional bonds equal at least 4.0x MADS for outstanding and additional bonds then to be issued.

Based on the foregoing, and despite the absence of a debt service reserve fund, KBRA has assigned a **AAA** Rating Determinant rating to the Legal Framework. In KBRA’s opinion, the direct deposit of pledged revenues

FIGURE 1



by the State with the Trustee, the highly restrictive ABT, and the critical importance of specified tax revenues to TriMet operations, act as offsetting factors to the absence of a reserve.

Bankruptcy Assessment

To be a debtor under the municipal bankruptcy provisions of the U.S. Bankruptcy Code (Chapter 9), a local governmental entity must, among other things, (1) qualify under the definition of “municipality” in the Bankruptcy Code, and (2) be specifically authorized to file a bankruptcy petition by the State in which it is located. KBRA has consulted outside counsel on bankruptcy matters and the following represents our understanding of the material bankruptcy issues relevant to the District. The District is a municipal corporation and public transportation authority that, among other things, was created pursuant to specific state legislation, possesses taxing power, and is subject to pervasive state control, and thus is a “municipality” as defined under the Bankruptcy Code. Oregon law does not currently permit municipalities in the State to file for protection under the U.S. Bankruptcy Code, with certain exceptions not applicable to the District. However, state law could be changed generally at any time, or specific legislation could be passed to permit the District to file a Chapter 9 petition.

Chapter 9 provides for post-petition recognition of (i) a security interest represented by a pledge of specific tax revenues or municipal enterprise revenues (each “special revenues”) and (ii) a statutory lien on revenues pledged for municipal obligations. In contrast, the pledge by the District of general payroll and self-employment taxes, State in-lieu payments, and other unrestricted funds, which are used by the District for general operations as well as debt service, is not recognized as a security interest or lien that survives the filing of a petition under Chapter 9. Accordingly, because (a) the taxes and other funds pledged to pay the Bonds are not from a separate, dedicated source of revenues that meets the definition of “special revenues” under Chapter 9, and (b) there is no statutory lien imposed on the revenues pledged to pay the Bonds, if the District were to file for relief under Chapter 9 holders of the Bonds would likely be treated as unsecured creditors of the District.

Rating Determinant 2: Nature of Special Tax Revenues

KBRA views specified tax revenues as providing a strong source of repayment for the Bonds, particularly given the demonstrated resiliency of this source. The geographic area in which this source is collected is large, encompassing a population of 1.6 million people, or 90% of the population of Multnomah, Clackamas, and Washington Counties. The District extends across the core of the Portland, Oregon metropolitan area¹ (MSA), which is the primary urbanized area of the State and accounts for a significant portion of the State’s overall economic activity. In KBRA’s view the substantial size and depth of TriMet’s underlying growing economy is supportive of generally rising payroll tax collections and ample capacity to support operating and capital needs of TriMet, including debt repayment.

The breadth of the tax base is extensive, consisting of payroll and self-employment taxes imposed by TriMet on a gross basis upon the payrolls of most employers within the District. Exemptions are limited and include carve-outs for federal credit unions, public school districts, non-profit/tax-exempt institutions (except hospitals), insurance companies, seasonal agriculture workers, and domestic service in private homes. State statutes provide for in-lieu of tax payments for State agency payrolls capped at a slightly lower rate (0.6%) than that applicable to other employers.

Based on the foregoing, KBRA views the nature of the special taxes as being consistent with a AAA Rating Determinant rating.

¹ The Portland-Vancouver-Hillsboro, Oregon-Washington Metropolitan Statistical Area as defined by the U.S. Office of Management and Budget.

Rating Determinant 3: Economic Base and Demographics

KBRA views the District’s economic base as strong and very diverse. The District consists of Oregon’s primary population center in and around the City of Portland and constitutes approximately 90% of the total population of Clackamas, Multnomah, and Washington counties. The three-county, has a population of 1.8 million people and encompasses much of the financial, economic, and industrial activity of the State including many of the State’s top employers. The Tri-County area is characterized by strong demographics, above average educational attainment, and per capita personal income that is higher than the State and national level.

The Tri-County Area makes up approximately 80% of the population of the Portland-Vancouver-Hillsboro, Oregon-Washington metropolitan statistical area, which is the 25th largest metropolitan area in the U.S. The MSA is notable for its concentration in durable goods manufacturing with 28% of MSA gross state product (GSP) derived from this sector in 2016 versus the domestic average at 11.7%. This concentration primarily reflects the presence of a well-established microchip manufacturing industry reflecting the presence of major fabrication facilities for Intel and several other firms.

FIGURE 2

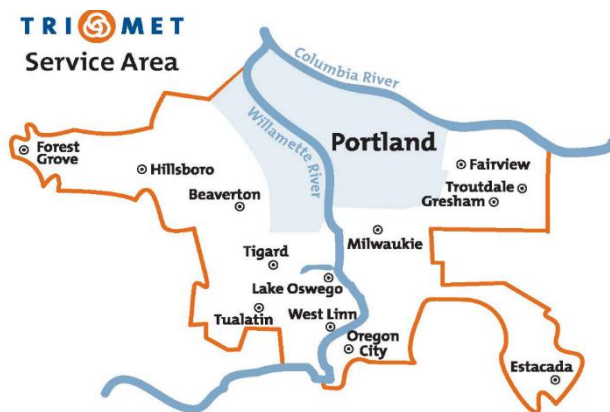


FIGURE 3

	2016 Population	Chg. from 2010	2016 Age Dependency Ratio ^{1,2}	Chg. from 2010	2016 Population w/ B.A. Degree or Higher ^{2,4}	Chg. from 2010	2016 Poverty Level ^{2,5}	Chg. from 2010
Tri-County Area ³	1,790,607	8.8%	53.7%	2.4%	42.4%	6.0%	11.4%	-2.1%
Oregon	4,085,989	6.5%	61.1%	3.7%	32.7%	3.9%	13.3%	-2.5%
United States	323,405,935	4.5%	61.5%	2.6%	31.1%	2.9%	14.0%	-1.3%
Tri-County Area as a % of Oregon		NA	87.9%		129.7%		85.7%	
Tri-County Area as a % of U.S.		NA	87.3%		136.3%		81.4%	

Source: U.S. Census Bureau

	2016 Personal Income (\$ billions)	Chg. from 2010	2016 Per Capita Personal Income	Chg. from 2010	2016 Real Gross State Product (\$ billions)	Chg. from 2010	2016 Real GSP Per Capita	Chg. from 2010
Tri-County Area ³	\$93.7	39.7%	\$52,356	28.4%	\$151.8 ⁵	7.4%	\$62,606 ⁵	-1.1%
Oregon	\$185.8	35.7%	\$45,482	27.4%	\$207.4	8.9%	\$50,751	2.3%
United States	\$15,912.8	27.7%	\$49,204	22.2%	\$16,383.8	12.0%	\$50,660	7.1%
Tri-County Area as a % of Oregon		NA	115.1%		NA		123.4%	
Tri-County Area as a % of U.S.		NA	106.4%		NA		123.6%	

Source: U.S. Bureau of Economic Analysis

¹Age dependency ratio is the sum of the population under 18 yrs and over 65 yrs divided by persons age 18 to 64 yrs.

²Year over year change shown as nominal change in percentage points.

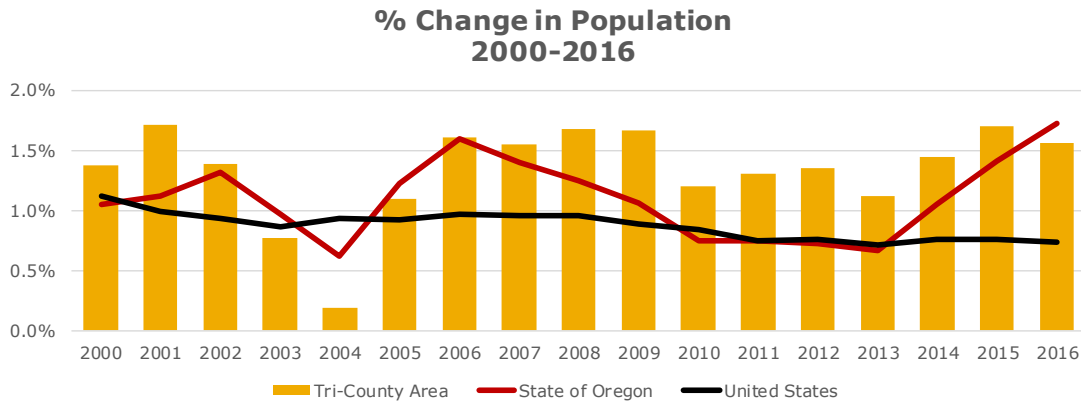
³Tri-County Area consists of the Oregon counties of Clackamas, Multnomah, and Washington.

⁴Percent of the population age 25 and over.

⁵Figure represents value for Portland-Vancouver-Hillsboro, OR-WA Metropolitan Statistical Area, of which the Tri-County Area makes up approximately 80% by population.

The population of the Tri-County Area has grown more quickly than the State and U.S. in recent years increasing by a strong 8.8% between 2010 and 2016. The high proportion of working age individuals and educational attainment further strength in the Tri-County area’s underlying economic base.

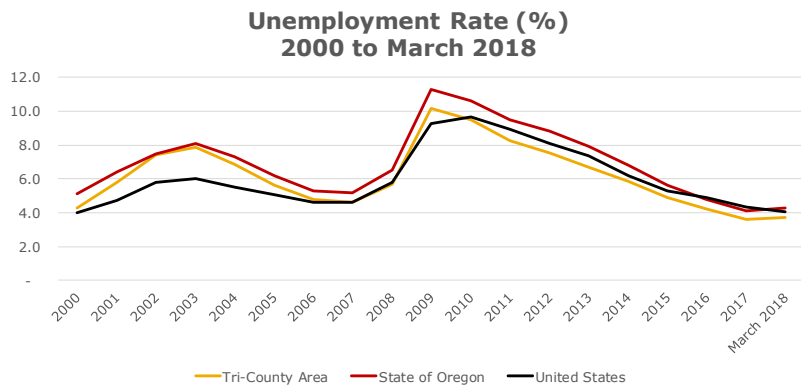
FIGURE 4



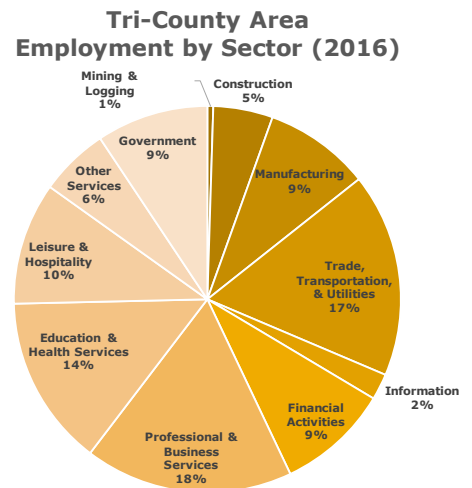
Source: U.S. Census Bureau

Unemployment in the Tri-County Area has trended somewhat lower than the State and nation overall since 2011, reaching a level of 3.9% as of March 2018. Top employment sectors include professional and business services (18%), trade transportation and utilities (17%), and education and health services (14%), reflecting a very diverse economic base similar to that of the nation. KBRA notes that the MSA’s 8.9% concentration of employment in the manufacturing sector is only modestly higher than the National average at 6.9%, despite the previously mentioned GSP concentration in manufacturing (28%) associated with microchip fabrication. KBRA views this disparity as reflective of both the high value-added and automated nature of this type of manufacturing.

FIGURE 5



Source: U.S. Bureau of Labor Statistics



Source: U.S. Bureau of Labor Statistics

Total employment in the Tri-County Area increased to 963,000 in 2017 marking an increase of 20.9% from its cyclical low in 2009. Job growth since 2009 has been driven primarily by high value-added sectors including professional services as well as education/health services, and leisure/hospitality.

FIGURE 6

Tri-County Area Total Employment (000s)						
Year	Tri-County Area	% Change	State of Oregon	% Change	United States	% Change
2000	794		1,726		136,891	
2001	784	-1.2%	1,707	-1.1%	136,933	0.0%
2002	769	-1.9%	1,697	-0.6%	136,485	-0.3%
2003	762	-1.0%	1,696	-0.1%	137,736	0.9%
2004	761	-0.2%	1,704	0.5%	139,252	1.1%
2005	773	1.6%	1,732	1.7%	141,730	1.8%
2006	799	3.4%	1,785	3.1%	144,427	1.9%
2007	820	2.6%	1,823	2.1%	146,047	1.1%
2008	828	1.0%	1,827	0.3%	145,362	-0.5%
2009	796	-3.8%	1,754	-4.0%	139,877	-3.8%
2010	824	3.5%	1,773	1.1%	139,064	-0.6%
2011	847	2.7%	1,804	1.8%	139,869	0.6%
2012	842	-0.6%	1,781	-1.3%	142,469	1.9%
2013	836	-0.8%	1,760	-1.2%	143,929	1.0%
2014	859	2.8%	1,804	2.5%	146,305	1.7%
2015	891	3.7%	1,867	3.5%	148,834	1.7%
2016	930	4.4%	1,951	4.5%	151,436	1.7%
2017	963	3.5%	2,017	3.4%	153,337	1.3%
Growth Since Low	167	20.9%	264	15.0%	14,273	10.3%

Source: U.S. Bureau of Labor Statistics

Employment concentration in the MSA is low with the ten largest employers accounting for 9.3% of employment in 2017. Concentration among the top 10 payroll taxpayers in the District however is somewhat higher at 21% of total specified tax collections in FY 2017 with the top tax generator alone accounting for approximately 8% of specified tax revenues. KBRA views this concentration as somewhat elevated.

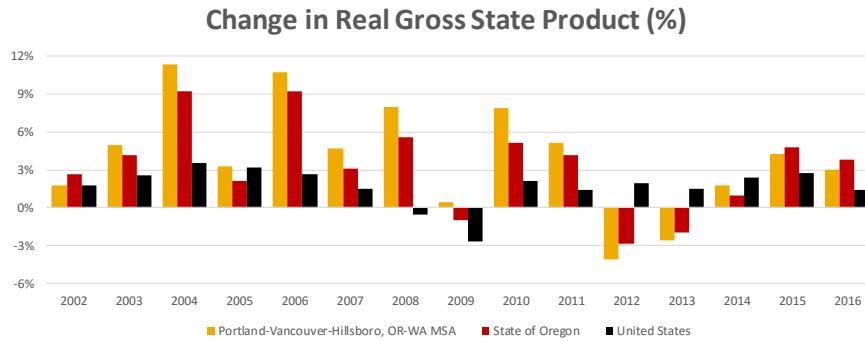
FIGURE 7

Top Employers in 2017 Portland-Vancouver-Hillsboro, OR-WA MSA		
Employer	Employees	Percentage of Total
Intel Corporation	19,300	1.6%
Providence Health and Services	17,543	1.4%
Oregon Health & Science University	16,200	1.3%
Legacy Health System	12,955	1.1%
Nike, Inc.	12,000	1.0%
Fred Meyer	10,637	0.9%
City of Portland	7,043	0.6%
Portland Public Schools	6,780	0.6%
Multnomah County	6,266	0.5%
Beaverton School District	5,207	0.4%
All Others	1,117,480	90.7%
Total MSA Employment	1,231,411	100.0%
Top 10 Employers	113,931	9.3%

Source: City of Portland, OR CAFR

The MSA economy tends to grow faster than the U.S. economy during periods of economic expansion and underperform during economic downturns. Seen in Figure 8, MSA economic output as measured by real (inflation adjusted) GSP has outpaced domestic growth in 11 of the last 15 years. From 2010 to 2016 however real GSP increased at a relatively low average annual rate of 1.2% versus the State at 1.4% and U.S. at 1.9%. This poor performance largely reflects contractions that occurred in 2012 and 2013 specific to the microchip manufacturing sector. Underperformance relative to the State in four of the last five years signal that the MSA may continue to face headwinds tied to dynamics affecting this industry, although KBRA notes that the recent level of growth remains strong relative to the overall U.S. economy.

FIGURE 8



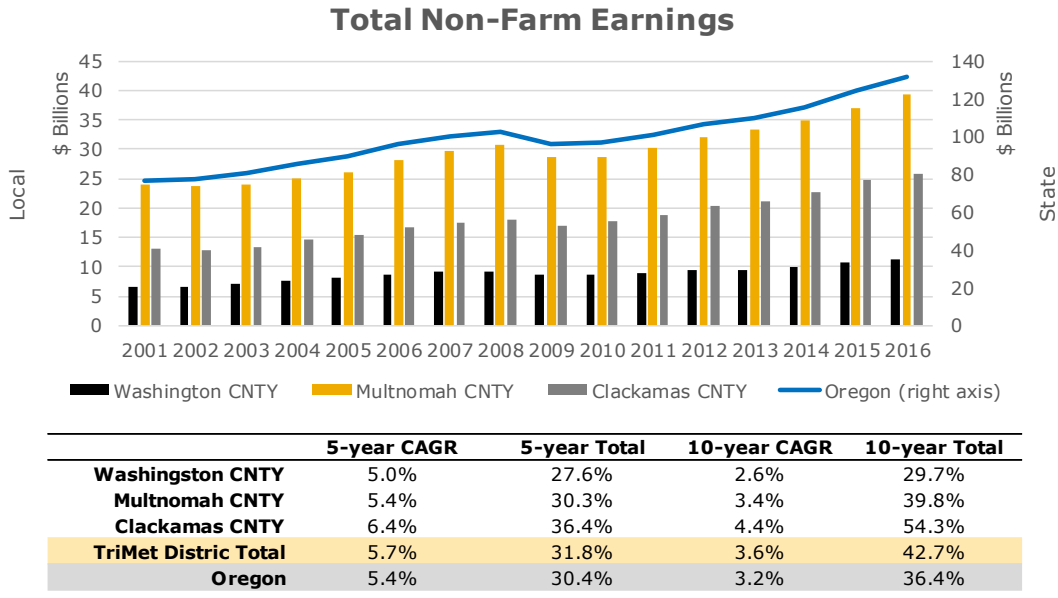
Based on the foregoing, KBRA views the economic base and demographics profile as consistent with the AAA Rating Determinant rating.

Rating Determinant 4: Revenue Analysis

KBRA views the specified tax revenues as providing a very strong source for repayment of the bonds. As described in Rating Determinant 2, taxes are applicable to the gross payrolls of employers operating within the TriMet region, with limited exclusions. While there is a measure of concentration among the largest payroll tax generators, KBRA views the performance of this source as less volatile than a sales tax, and resilient to economic downturns. Pledged revenues have declined YOY only three times since 1990. In addition, the State legislature has provided support for TriMet capital and operating requirements by twice authorizing 10-year phased-in payroll tax increases.

Historically, regional wealth indicators in the TriMet region have exceeded those of the State and U.S. and exhibited growth at a more robust rate, as discussed earlier. Total Tri-County area employment reached 1.0 million in 2017, with total non-farm earnings of \$76.5 billion. Total non-farm earnings between FY 2011 and FY 2016 increased by a significant 31.8%, surpassed the State’s 30.4% growth (see Figure 9). The healthy growth in non-farm earnings is an important indicator of the local economy as generator of the specified tax revenue supporting the bonds.

FIGURE 9



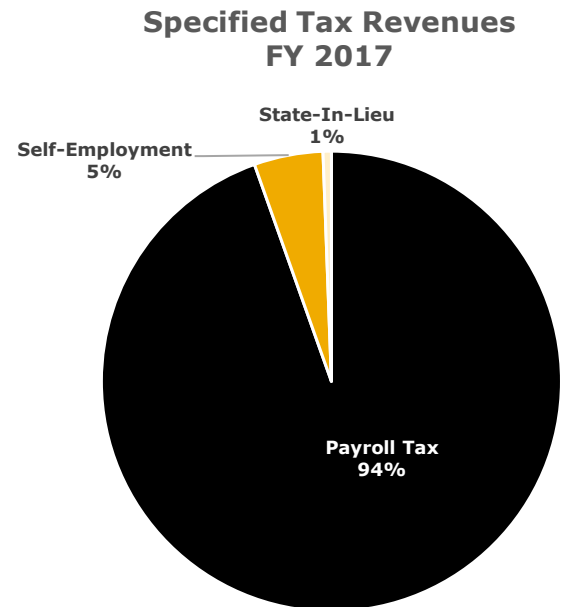
Source: Bureau of Economic Analysis

Mirroring the growth momentum in non-farm earnings, total specified tax revenue exhibited a robust 35.5% growth between 2012 and 2017. Significantly, growth in payroll tax exceeded 36.6% and growth in self-employment tax grew by a solid 30.8% during the same period (see Figure 10).

FY 2017 specified tax revenues were comprised of employer payroll taxes (94%) and self-employment taxes (5%), with the remaining 1% represented by state-in-lieu payments (see Figure 10). Note that the state-in-lieu payments portion was not part of specified tax revenues until FY 2010 and are assessed at 0.6% of the total wage pay to state employees for performing services within the District. This is a lower rate than the 0.7537% applied to employer and self-employment payrolls and is fixed and not subject to the State-authorized increases now being phased-in for the employer and self-employment payrolls.

Both payroll and self-employment taxes were modestly affected by the Great Recession. The downturn's effect on payroll tax was relatively minor, declining by 1.1% in FY 2009 and 2.3% in FY 2010. The downturn affected self-employment tax revenues more severely, as double-digit declines were recorded in FY 2008 and FY 2009. Overall, the recessionary effect on specified tax revenues was minimal, driven by the largely stable payroll tax performance. Only a one-year decline of 2.6% in FY 2009 was registered, followed by YOY growth from FY 2010 to FY 2017. Payroll and self-employment taxes both recovered to over 100% of pre-recession levels by FY 2011.

FIGURE 10



Source: TriMet

KBRA notes positively that the payroll and self-employment taxes benefit from a diverse employment base that is undergoing healthy expansion in recent years as discussed in Rating Determinant 3.

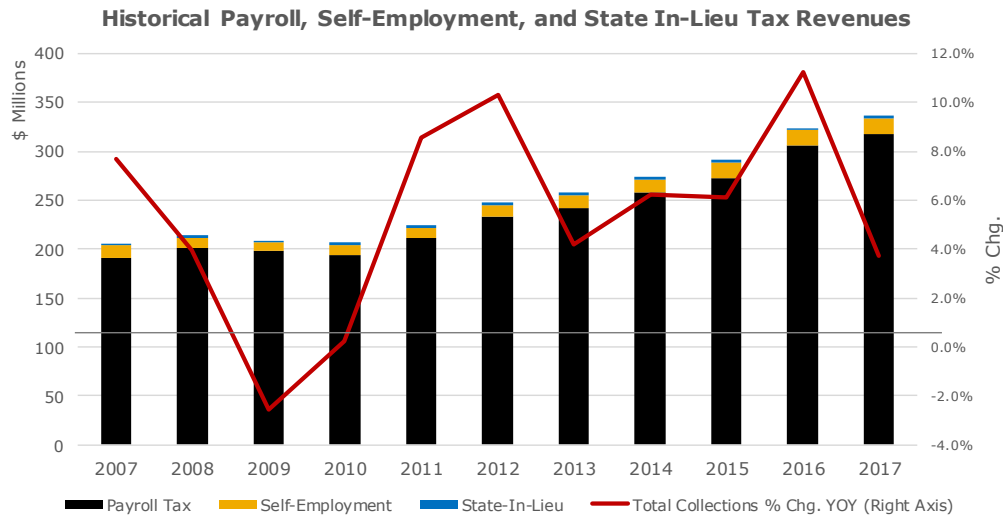
FIGURE 11

Historical Payroll, Self-Employment, and State in-lieu Tax Revenues								
(\$'000s)								
Fiscal Year	Payroll Tax	% chg.	Self-Employment	% chg.	State-In-Lieu	% chg.	Total	% chg.
2007	191,073	7.2%	12,837	16.7%	2,260		203,910	7.7%
(1) 2008	201,163	5.3%	10,868	-15.3%	2,255		212,031	4.0%
(1)(2) 2009	198,864	-1.1%	7,743	-28.8%	2,482		206,607	-2.6%
(1)(2) 2010	194,241	-2.3%	10,165	31.3%	2,676	7.8%	207,082	0.2%
(1)(2) 2011	211,280	8.8%	10,919	7.4%	2,659	-0.6%	224,858	8.6%
(1)(2) 2012	232,756	10.2%	12,451	14.0%	2,872	8.0%	248,079	10.3%
(1)(2) 2013	242,669	4.3%	13,138	5.5%	2,706	-5.8%	258,513	4.2%
(1)(2) 2014	258,185	6.4%	13,594	3.5%	2,795	3.3%	274,574	6.2%
(2) 2015	273,308	5.9%	14,784	8.8%	3,202	14.6%	291,294	6.1%
(2)(3) 2016	305,667	11.8%	16,358	10.6%	1,975	-38.3%	324,000	11.2%
(2) 2017	317,875	4.0%	16,285	-0.4%	1,971	-0.2%	336,131	3.7%
5-yr CAGR		6.4%		5.5%		-7.3%		6.3%
5-yr Total		36.6%		30.8%		-31.4%		35.5%
10-yr CAGR		5.2%		2.4%		-1.4%		5.1%
10-yr Total		66.4%		26.9%		-12.8%		64.8%

(1) Tax rate changes are as follows: FY 2007 through FY 2014 +0.01 percent in each year; FY 2013, City of Boring withdrawal +0.001905 percent. No increase in rates in FY 2015.
 (2) Totals FY 2010 through FY 2017 include State in-lieu payments. Totals before FY 2010 do not include State in-lieu payments, as State in-lieu taxes were not included as Specified Tax Revenues in the Indenture until FY 2010.
 (3) Payroll taxes increased and State in-lieu taxes decreased in FY 2016 due in part to Portland State University's separation from the Oregon University System, triggering a reclassification of Portland State University as a regular payroll tax paying entity from a State-in-lieu payer.

Source: TriMet

FIGURE 12



Source: TriMet

As referenced earlier, there is the potential for areas within the TriMet District to petition a withdrawal. A withdrawal of a TriMet participant would trigger an automatic rate increase in both payroll and self-

employment taxes imposed in other TriMet participants to neutralize any anticipated revenue loss. The most recent withdrawal was in FY 2013 by the City of Boring, a Clackamas County community with a population of less than 10,000. The withdrawal triggered an automatic rate increase of 0.001905% (\$0.01905 per \$1,000 of employer payroll) for the remaining TriMet region.

In FY 2016, City of Wilsonville of Clackamas County initiated a negotiation to withdraw from TriMet. Since Wilsonville has a population of over 10,000, it is not permitted to withdraw from TriMet pursuant to the Oregon State Law. Withdrawal of any portion of Wilsonville from TriMet would require TriMet approval and is subject to negotiation. KBRA will continue to monitor the issue.

In the past ten years, TriMet provided roughly 100 million annual trips Systemwide. It is KBRA’s view that TriMet provides essential and affordable transportation alternatives connecting workers to their employers located in all participating jurisdictions. KBRA believes that the economic benefits of such public transportation system in the Tri-County Area will continue to incentivize areas within the TriMet region to remain.

FIGURE 13

TriMet Ridership (000)s						
Fiscal Year	Fixed Route Bus and Rail		Paratransit		System	
	Annual	Average Weekday	Annual	Average Weekday	Annual	Average Weekday
2005	95,759	306	1,026	3.5	96,785	310
2006	95,736	307	1,050	3.6	96,786	311
2007	96,918	310	1,084	3.7	98,002	314
2008	99,230	315	1,122	3.8	100,352	319
* 2009	101,467	323	1,088	3.7	102,555	327
** 2010	99,337	315	1,073	3.6	100,410	319
2011	100,003	318	1,064	3.6	101,067	322
2012	102,238	325	1,063	3.6	103,301	329
*** 2013	99,247	316	1,038	3.6	100,285	320
*** 2014	98,775	315	1,037	3.6	99,812	319
2015	100,711	321	1,042	3.6	101,753	325
2016	100,479	319	1,065	3.7	101,544	323
2017	97,969	312	1,018	3.5	98,987	315

Source: TriMet Transportation District of Oregon, Senior Lien Payroll Tax Revenue Bonds Series 2018A

* WES Commuter Rail began operation in Feb 2009

** Ridership decreased due to bus service reductions and regional employments affected by the recession

*** Ridership decreased as a result of continued impact of service cuts and the elimination of the free rail zone. In FY 2014, restoration of frequent service routes began to be implemented

Based on the foregoing, KBRA views the revenue analysis of TriMet as consistent with the AA+ Rating Determinant rating.

Rating Determinant 5: Coverage and Bond Structure

KBRA views pledged revenues as providing exceedingly ample coverage of annual debt service requirements. Over the past ten years, minimum debt service coverage has been in excess of 13.0x (see Figure 14), despite increases in annual requirements due to frequent issuance.

Including the now offered Series 2018A Bonds, debt service requirements are expected to sharply increase from \$24 million in FY 2017 to maximum annual debt service (MADS) of \$33.2 million in FY 2019, remaining level through FY 2034 then declining sharply and leveling off through 2041, before declining again and remaining level through maturity in 2049 (see Figure 15). Based on this expected combined debt service schedule and forecasted specified tax revenue collections of \$359.7 million for FY 2018, KBRA estimates very robust current year (FY 2018) coverage of FY 2019 MADS at 10.83x. Coverage may narrow due to future expected borrowing during the FY 2020 through FY 2024 period.

FIGURE 14

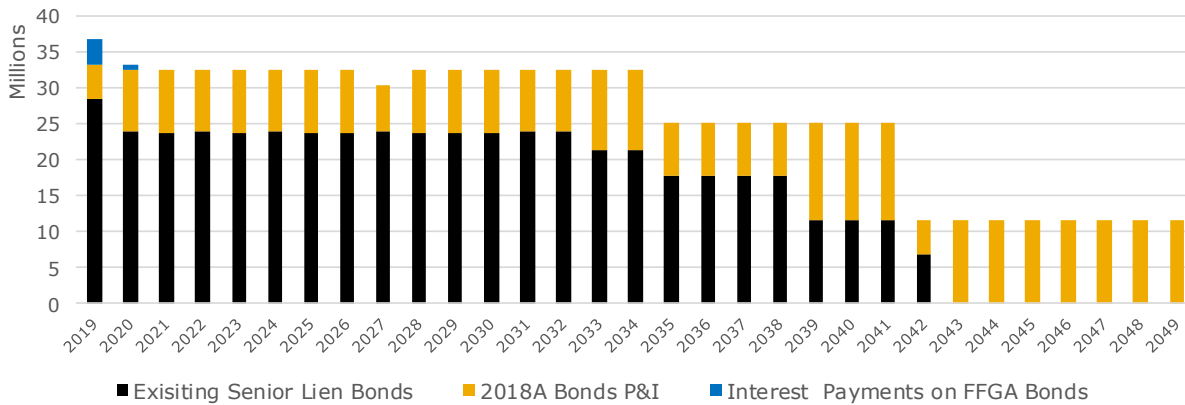
Historic DSCR		
FY	ADS	DSCR
2007	13,648	15.11x
2008	12,939	16.56x
2009	12,925	16.18x
2010	13,682	15.14x
2011	16,403	13.71x
2012	15,499	16.01x
2013	14,059	18.39x
2014	18,308	15.00x
2015	17,777	16.39x
2016	17,268	18.76x
2017	23,981	14.02x

Pro Forma Debt Service Coverage		
MADS Year	MADS (\$'000)	Pro Forma MADS Coverage
2019	33,198	10.83x

Source: TriMet

FIGURE 15

Debt Service Requirements



Source: TriMet | DS Requirements for 2018A Debt Service are based on estimates

Five-Year Capital Improvement Plan (CIP)

TriMet employs rolling five-year capital improvement plans to address capital needs. A break-out of capital spending for the FY 2019-FY 2023 period is shown in Figure 16. TriMet expects the capital expenditures shown to be funded through a \$500 million contribution from the TriMet general fund and a portion of the \$300 million long-term financing planned over the FY 2019 through FY 2026 period, with various grants making up the balance. Major projects included in the 5-year CIP are bus replacement and fleet expansions, as well as implementation of electronic payment systems and the phase out of the paper ticket system. The additional borrowing will likely be structured so that annual debt service obligations remain below the 6% of projected continuing revenues threshold, as required by TriMet’s debt management policy.

In future years TriMet will benefit from supplemental funding for transportation purposes. In October 2017, House Bill 2017, designed to finance statewide needs and improvements, became law in Oregon. Based on a preliminary allocation formula, TriMet expects to receive an additional \$40 million in annual capital funding beginning in FY 2019. In addition to increasing certain transportation-related fees and taxes, the bill imposes a tax of 0.1 percent on employee wages. The additional funding is not yet reflected in the five-year CIP.

FIGURE 16

TriMet Five Year Capital Improvement Plan <i>(Amount in \$ thousands)</i>	
PROJECTS	FY 2019-2023
System Expansion	411,687
Fleet	346,973
Infrastructure	268,662
Facility	197,295
Transit Security & Safety	40,813
Information Technology	36,068
Equipment	9,107
Other	5,225
Total	1,315,831

Source: TriMet

Stress Testing

KBRA performed sensitivity analysis to assess how changes in specified tax revenues might impact the pro forma debt service coverage of the Bonds. Results of the KBRA stress tests can be found in Figure 17.

Base-Case Scenario

In the base-case, KBRA assumed that specified tax revenues grow by 2.2% annually for the life of the bonds. This growth rate represents the 10-year average consumer price index inflation rate of the MSA and it is slightly lower than 50% of the 10-year CAGR of the specified tax revenue collections. Based on the preliminary financing schedule MADS will occur in 2019 at which times specified tax revenues in this scenario would provide strong coverage of 11.07x.

Stress-Case to 4.00x ABT Scenario

KBRA performed a break-even analysis to assess how far specified tax revenue collections would have to decline before reaching the 4.00x ABT. Based on the preliminary financing schedule, KBRA found that total specified tax revenue would have to decline 63% from the \$359.7 million level projected for FY 2018 to \$133 million in FY 2019 (MADS year) to reach 4.00x coverage. Based on this analysis and historical pledged revenue trends, KBRA views specified tax revenues as providing extremely robust coverage of the Bonds and views the likelihood of a decline in collections sufficient to approach the 4.00x ABT as exceedingly low.

Additional Debt Scenario

In the additional debt scenario, KBRA layered in \$300 million in additional debt. Level debt service payments on the additional debt over 30 years was assumed and this hypothetical repayment schedule was analyzed against the same 2.2% annual specified tax revenue growth assumption used in the base case. Based on this structure, MADS would occur in FY 2034, upon which expected revenues would provide coverage of 9.80x, which KBRA believes to be ample.

FIGURE 17

Stress Tests				
	Current Year (FY 2018) Coverage to MADS	Base Case Scenario	Stress Case to 4.00x ABT Scenario	Additional Debt Scenario
Description	Payroll Tax, Self-Employment Tax, and State-in-lieu payments remain at the FY 2018 levels for the life of the bonds	Payroll Tax grows at 10 year average CPI of the MSA, which is slightly less than half of the 10-Year CAGR of Payroll Tax (4.6%) for the life of the bonds Self-Employment Tax and State-in-lieu payments remain at FY 2018 levels for the life of the bonds	Testing for how much revenue decline can TriMet withstand before annual debt service (ADS) coverage reaches 4.00x	Testing for debt service coverage using the revenue assumptions used in KBRA's base case with an additional \$300M debt issuance as planned in the CIP
Payroll Tax Growth Rate	0%	2.20%	Declines by 67% from \$359.7M in FY 2018 to \$113M in FY 2019	2.20%
Total Pledged Revenue Growth Rate	0%	2.2% CAGR	-67% declines from FY 2018 to FY 2019	2.2% CAGR
MADS Year	2019	2019	2019	2034
MADS (\$000)	\$33,198	\$33,198	\$33,198	\$51,969
MADS Coverage	10.83x	11.07x	4.00x	9.80x

Based on the foregoing, KBRA assesses the coverage and bond structure of the Senior Lien Payroll Tax Revenue Bonds as consistent with AAA Rating Determinant rating.

Conclusion

KBRA has assigned a long-term rating of AAA with a Stable Outlook to the Tri-County Metropolitan Transportation District of Oregon Senior Lien Payroll Tax Revenue Bonds Series 2018A. KBRA has also assigned a long-term rating of AAA with a Stable Outlook to outstanding parity Tri-County Metropolitan Transportation District of Oregon Senior Lien Payroll Tax Revenue Bonds.

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