



Draft ST3 Financial Plan (May 26, 2016)

Expert Review Panel

June 6, 2016

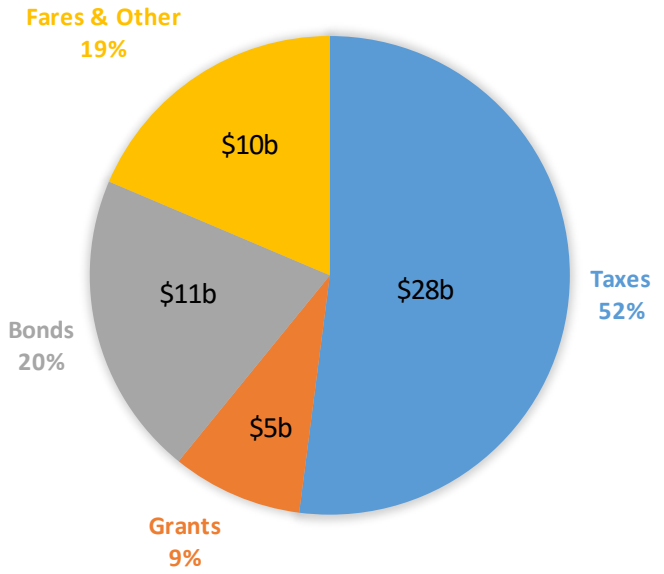
 **SOUNDTRANSIT**

5-26-16 Draft ST3 Plan Fully Affordable

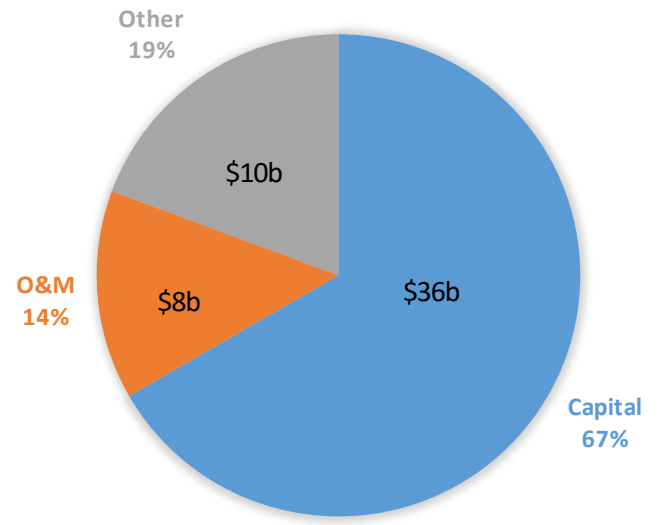
- Draft ST3 Plan is:
 - Fully consistent with existing and proposed financial policies
 - Provides transparent accounting of all program costs
 - Meets the requirements of subarea equity that a subarea's revenues are spent on transit improvements that benefit the subarea
 - Consistent with prudent financial planning assumptions and will allow continuation of high credit ratings enjoyed by ST
 - 1.5x net coverage
 - Independently confirmed by: PB Consulting, Ben Porter & Associates and investment banking team.

Plan Delivers \$36 billion of Capital Improvements to Region

SOURCES OF FUNDS \$54 B.



USES OF FUNDS \$54 B.

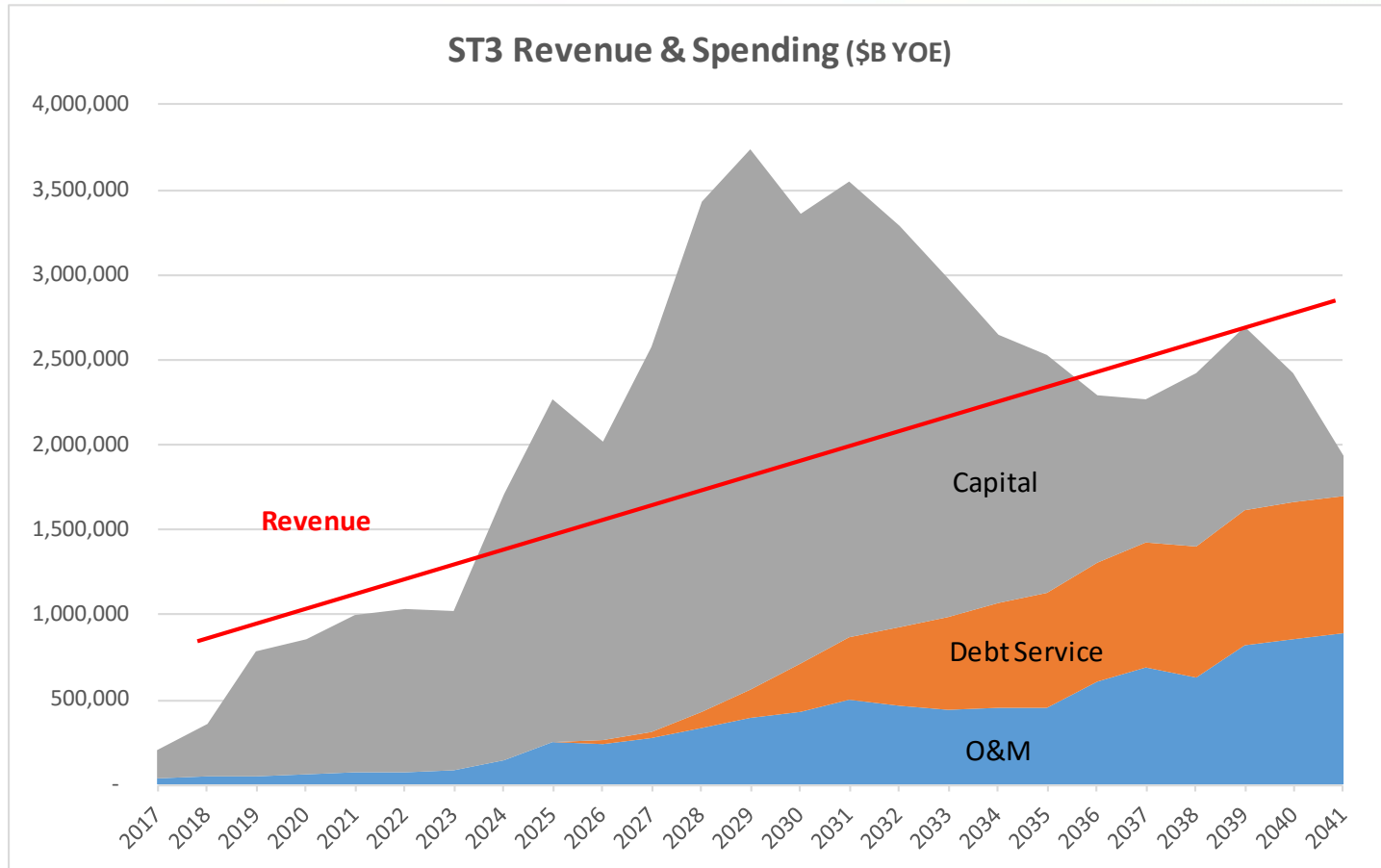


Billions of Year of Expenditure \$

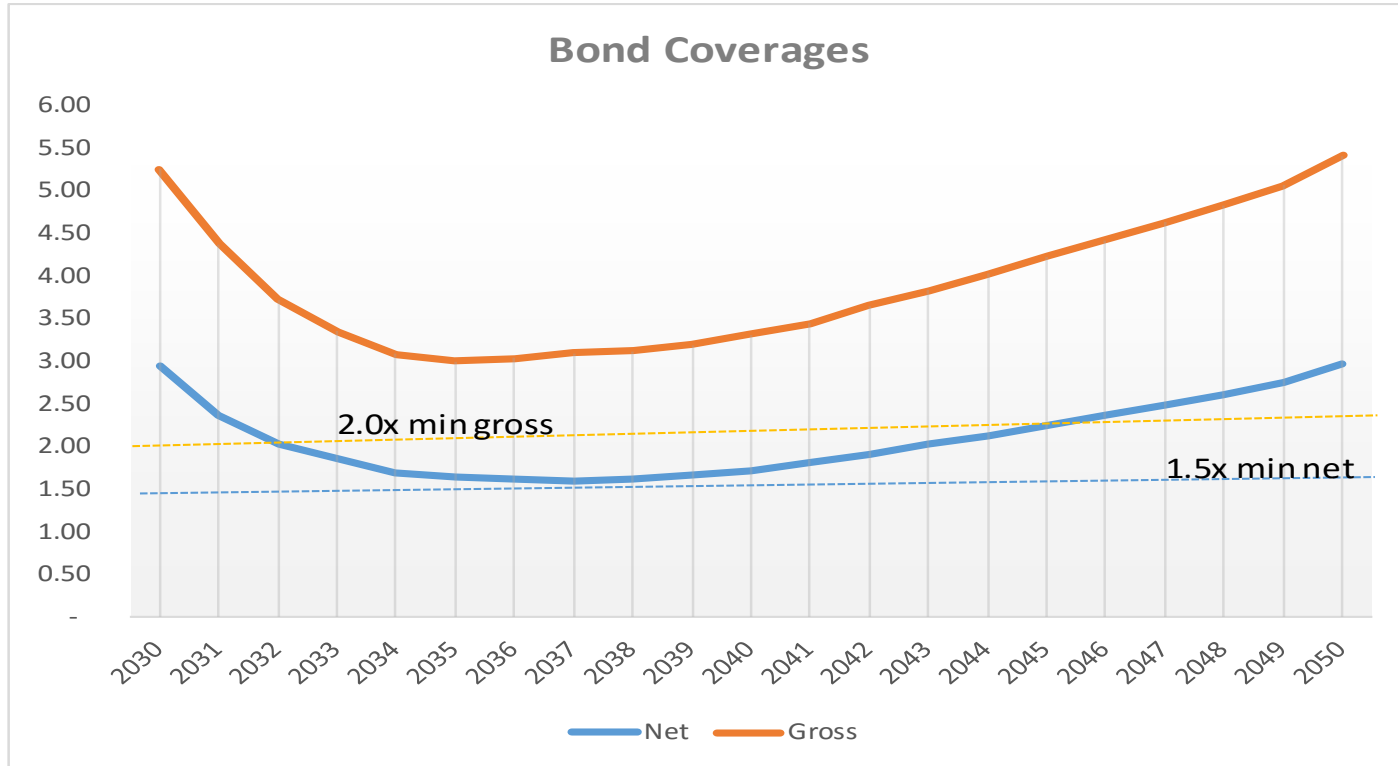
Financial Plan - Sources & Uses Summary
2017 through 2041

(YOE Dollars in Millions)

Sources of Funds	Snohomish	North King	South King	East King	Pierce	System-wide	Total
ST3 Tax Revenues	3,689	7,912	3,933	6,973	5,203	-	27,710
ST3 Grants - Federal	768	1,168	622	873	678	580	4,690
Sound Move + ST2 Surplus	1,884	1,824	891	1,606	2,623	481	9,308
Bond Proceeds	2,809	4,754	2,713	431	242	-	10,948
Fares & Other Revenues	105	389	291	256	205	2	1,247
Interest Earnings	-	-	-	-	-	355	355
Total Sources	9,254	16,046	8,450	10,139	8,951	1,417	54,258
Uses of Funds							
Capital Expenditures							
Souder Commuter Rail	-	-	727	-	1,438	-	2,165
Link Light Rail	5,867	8,764	3,234	6,004	3,200	4,022	31,091
Regional Express Bus	23	5	25	76	60	-	189
Bus Rapid Transit	42	325	268	1,217	127	-	1,978
System-wide Activities	122	109	72	29	69	341	742
Total Capital	6,053	9,203	4,327	7,327	4,893	4,363	36,166
O & M Expenditures							
Souder Commuter Rail	-	-	270	-	326	-	596
Link Light Rail	409	679	563	305	312	702	2,971
Regional Express Bus	67	-	59	160	278	-	563
Bus Rapid Transit	132	238	170	668	90	-	1,298
System-wide Activities	-	-	-	-	-	2,176	2,176
Total O&M	608	918	1,062	1,132	1,006	2,878	7,605
Debt Service	1,748	3,397	2,157	408	185	-	7,895
State of Good Repair	9	81	171	440	81	-	781
Contribution to Reserves	72	791	(92)	(632)	1,705	(33)	1,812
Contribution to System-wide	764	1,658	825	1,463	1,081	(5,791)	-
Total Uses	9,254	16,046	8,450	10,139	8,951	1,417	54,258

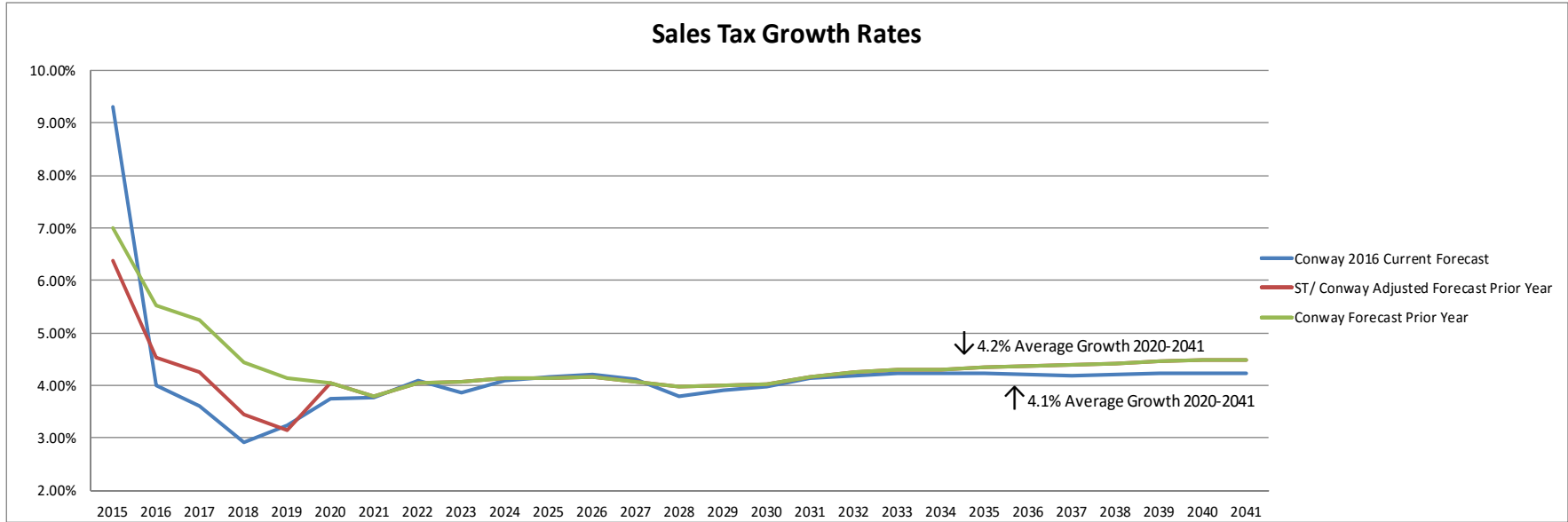


Debt Coverages Above Policy Targets

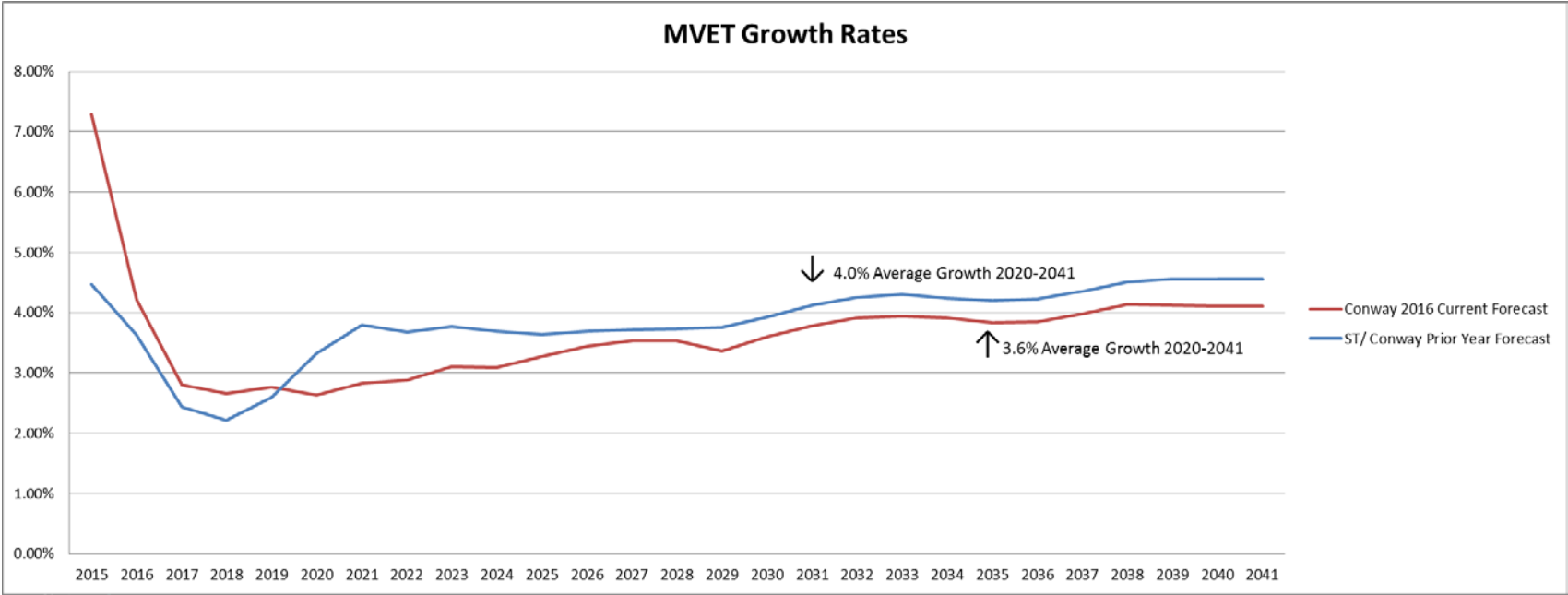


ST3 Sales Tax Forecast Up \$42 million

Sales Tax Growth Rates



ST3 MVET Down \$ 67 million



Key Financial Planning Assumptions for ST3				
<i>Nominal Dollars</i>				
	Sound Move	2007 ST2 Plan	ST3 Draft Plan April	ST3 Draft Plan May
Funding Sources				
Sales Tax and Use Tax	0.4%	0.9%	0.5%	0.5%
Motor Vehicle Excise Tax (MVET)	0.3%	0.3%	0.8%	0.8%
Property Tax			\$ 0.25	\$ 0.25
Annual Average Revenue Growth				
Sales Tax and Use Tax	4.8%	5.2%	4.1%	4.0%
MVET	5.8%	5.3%	3.8%	3.5%
Bonding				
Level-Loaded Term	30 years	30 years	30 years	30 years
Amortization	Wrap	Wrap	Wrap	Wrap
Interest-Only Term	5yrs/10yrs	5 years	5 years	5 years
Interest-Only Premium	-	-	-	-
Debt Issuance Costs	1.5%	1.5%	1.5%	1.5%
Gross Debt Services Ratio Policy	NA	NA	NA	NA
Net Debt Services Coverage Ratio Policy	1.3x	1.5x	1.5x	1.5x
Borrowing Range				
Interest Rate	6.00%	5.75%	5.30%	5.30%
Federal Funds				
% of Capital	21%	7%	11%	13%
Inflation Cost Index				
Consumer Price Index	2.90%	3.60%	3.30%	3.30%
Building Cost Index	3.90%	3.60%	3.60%	3.60%
Right of Way Index	3.90%	4.60%	4.60%	4.60%
ST Inflation Contingency	No	No	No	No
Other				
Interest earning rate	3.00%	3.00%	3.00%	3.00%
Capital Replacement	Yes	Yes	Yes	Yes
Debt/Equity Ratio				
	30%	49%	22%	30%
State-of-Good-Repair				
	Funded	Funded	Funded	Funded

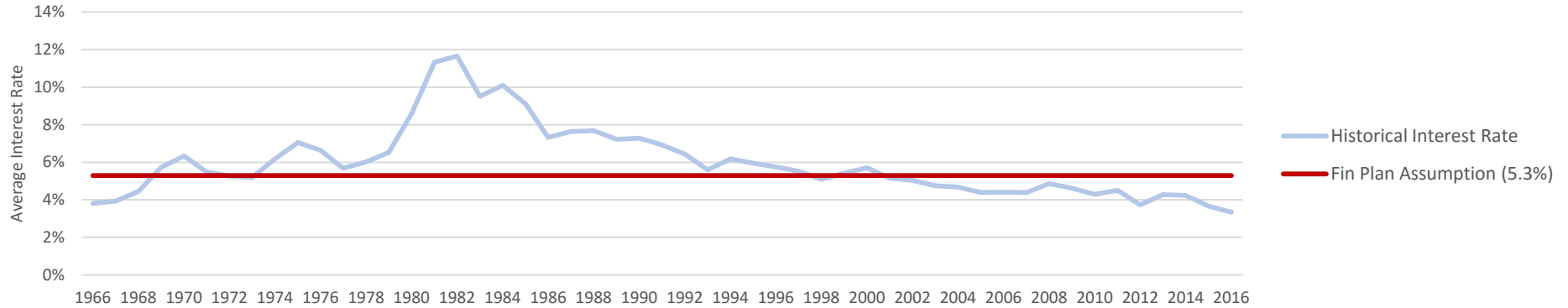
❑ *Initial Static Stress Tests*

- *Capital Costs: 10% increase in all capital (\$3.6 billion)*
- *Sales Tax: 6% reduction in revenue 2017-2041*
- *Recession: -4% 2017, 0% 2018, return to forecast thereafter*
- *Interest rate increase of 25% (130 basis points, 6.6%)*
- *Inflation: increase of 60 basis points*

❑ *Dynamic Risk Assessment*

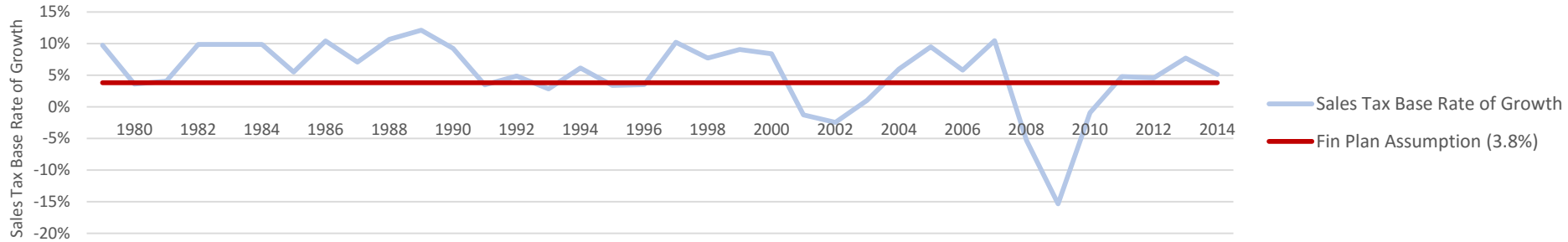
Risk Assessment Variables – Interest Rate

Average Interest Rate

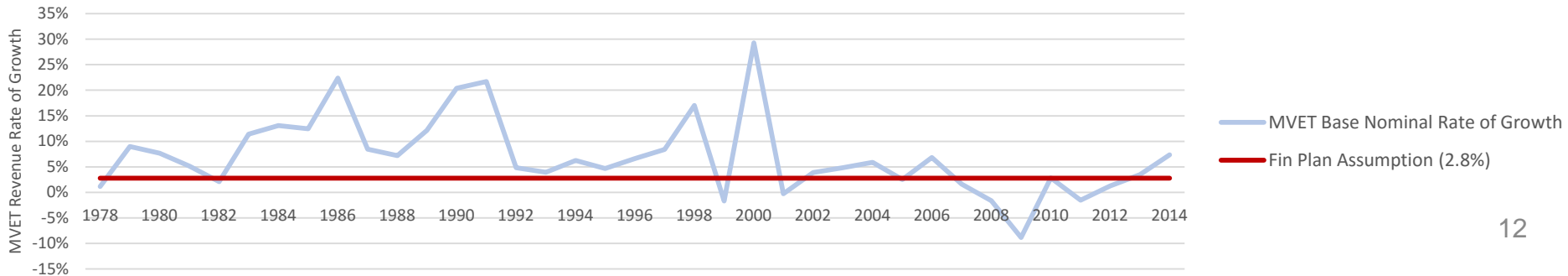


Risk Assessment Variables – Sales Tax and MVET

Sales and Use Tax Base Nominal Rate of Growth

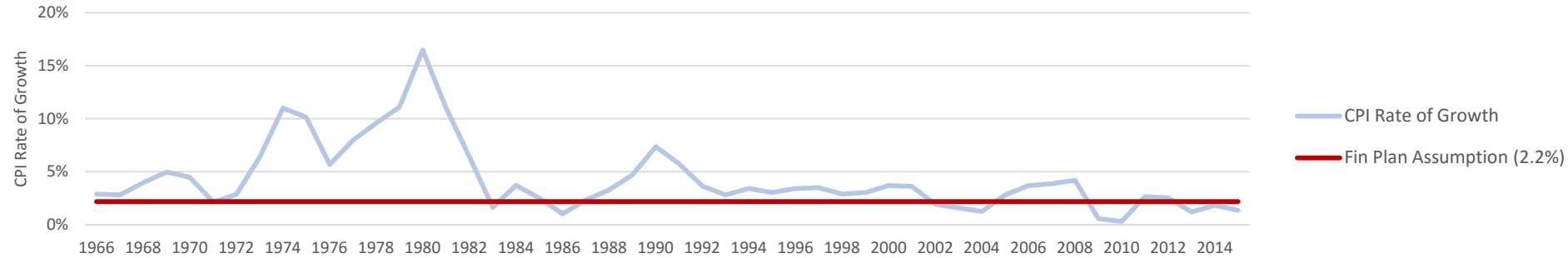


MVET Base Nominal Rate of Growth

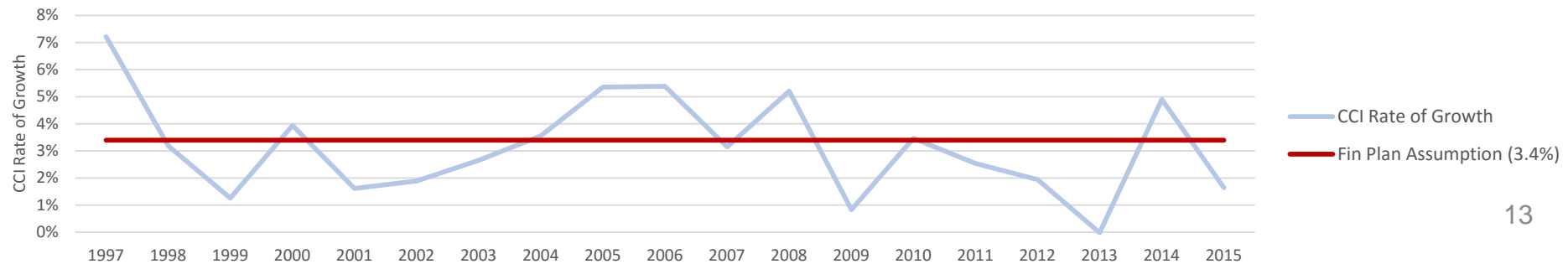


Risk Assessment Variables – CPI and CCI

Consumer Price Index (CPI) Rate of Growth

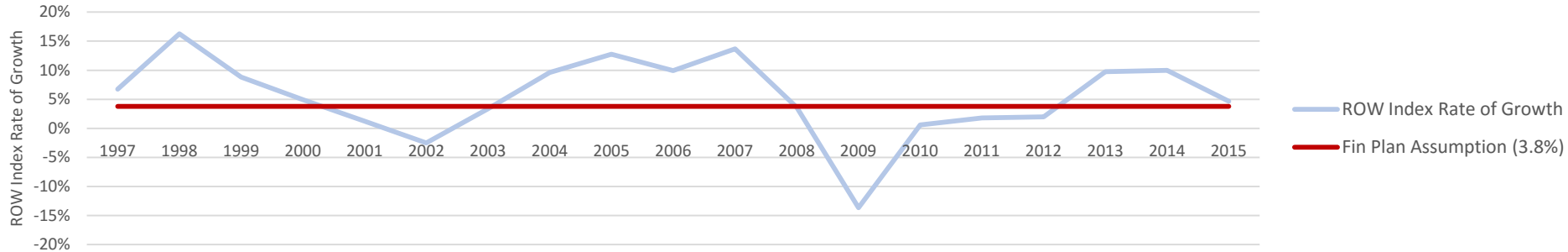


Construction Cost Index (CCI) Rate of Growth

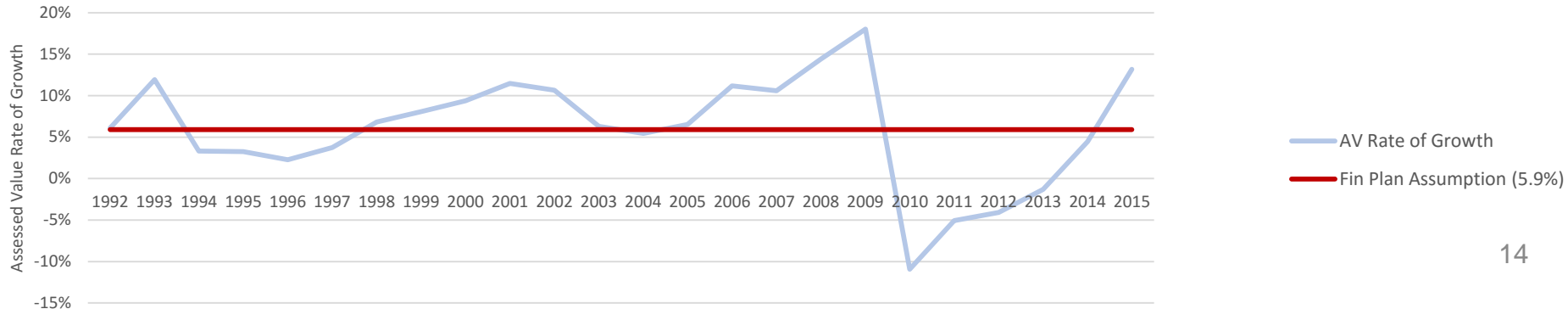


Risk Assessment Variables – ROW and Assessed Value

Right-of-Way (ROW) Index Rate of Growth



Assessed Nominal Value Rate of Growth



Distribution Fitting – Risk Register

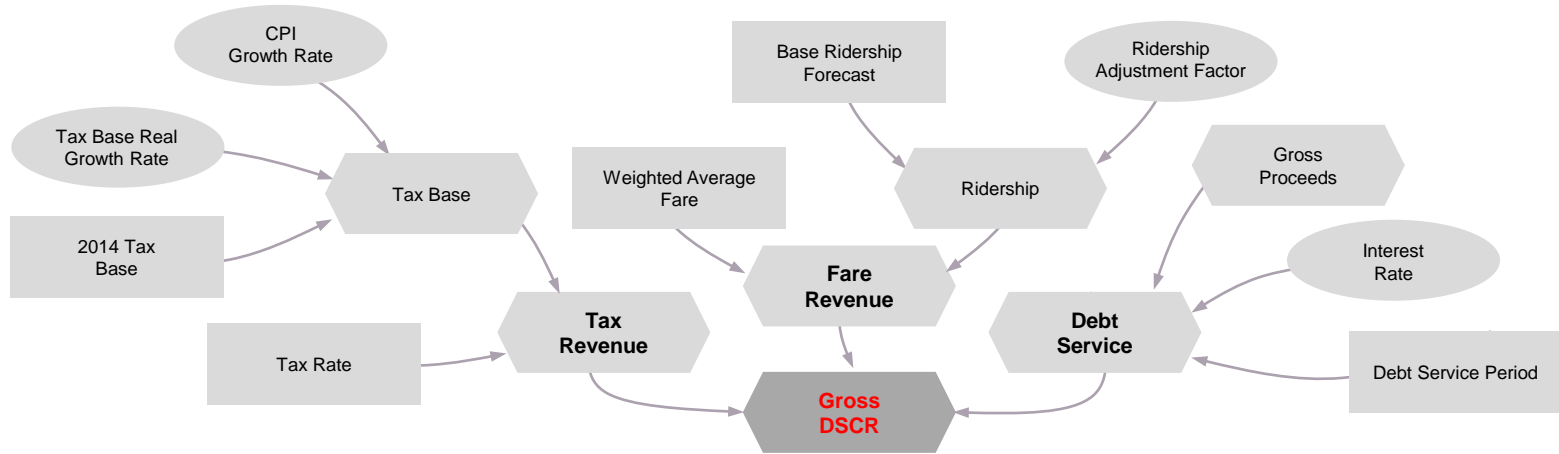
#	Uncertain Variable	Variable Type	Historical Data Series	Distribution Curve	Min	5 th %ile	95 th %ile	Max	Mode (Most Likely)	Mean	Std Dev
1	General Inflation (CPI) Growth Rate	Annual	1966-2015	LogLogistic	-0.30%	0.99%	10.52%	10.52%	2.53%	4.37%	4.43%
2	Construction Cost Inflation (CCI) Growth Rate	Annual	1997-2014	Normal	-1.13%	1.48%	6.3%	7.58%	3.23%	3.23%	1.86%
3	Right of Way Cost Inflation (ROWI) Growth Rate	Annual	1997-2014	Logistic	-11.07%	-4.96%	16.87%	22.99%	5.96%	5.96%	6.72%
4	Sales Tax Base Real Growth Rate ¹	Annual	1979-2014	Logistic	-11.36%	-6.51%	10.78%	15.62%	2.13%	2.13%	5.33%
5	Motor Vehicle Excise Tax (MVET) Base Real Growth Rate	Annual	1978-2014	ExtValue	-7.17%	-7.17%	17.67%	17.67%	-0.47%	3.05%	7.83%
6	Property Assessed Valuation (AV) Nominal Growth Rate	Annual	1992-2015	ExtValueMin	-16.19%	-7.22%	15.16%	17.53%	9.12%	5.95%	7.06%
7	New Property Tax Revenue Growth Rate	Annual	-	Triangular	0%	-	-	0.80%	0.50%	-	-
8	Federal New Starts Grant Revenues ²	Annual	-	Triangular	-	-	-	-	-	-	-
9	Borrowing Interest Rate ³	Annual	1966-2016	LogNormal	2.63%	3.79%	9.68%	12.78%	4.80%	5.98%	1.96%
10	Construction Cost Adjustment Factor	Uniform	-	Pert	-10%	-	-	15%	0%	0.83%	-
11	Right of Way Cost Adjustment Factor	Uniform	-	Pert	-10%	-	-	15%	0%	0.83%	-
12	Other Capital Cost Adjustment Factor	Uniform	-	Pert	-10%	-	-	15%	0%	0.83%	-
13	Ridership Forecast Adjustment Factor	Uniform	-	Uniform	-10%	-	-	10%	0%	0%	-

¹ To reflect the positively-skewed shape of the historic data histogram, the Logistic distribution (which is by definition symmetrical) is truncated at the 95th percentile value, equal to 10.81%. The maximum value observed in the data series considered is 10.43% in the year 1983.

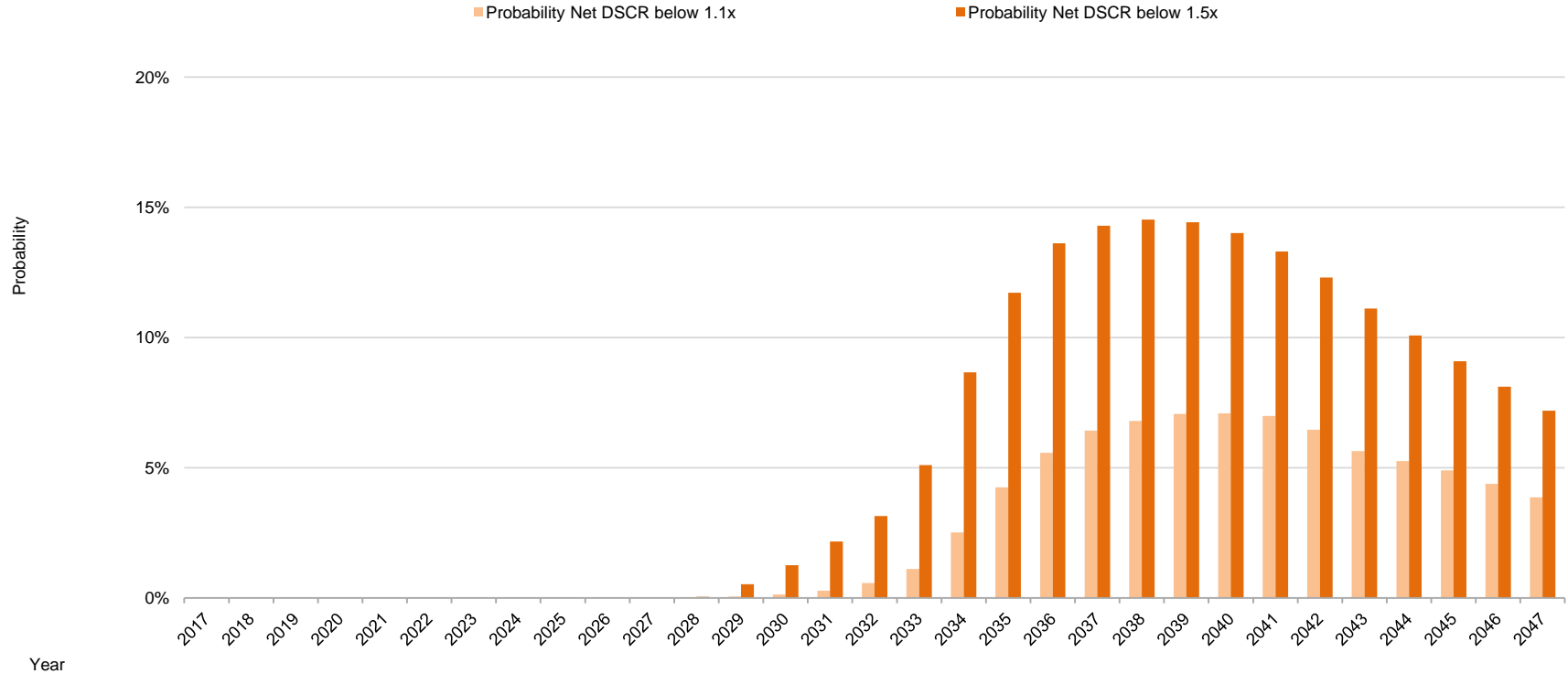
² Annual probability distributions for Federal New Starts Grant Receipts are defined by minimum, maximum, and most likely forecast values provided by Sound Transit for forecast years between 2019 and 2044.

³ The fitted distribution was re-adjusted to achieve a mode equal to the forecasted interest rate of 5.3%. This was to account for the fact that the historical data is not a perfect proxy for Sound Transit's AAA-credit rating based interest rate.

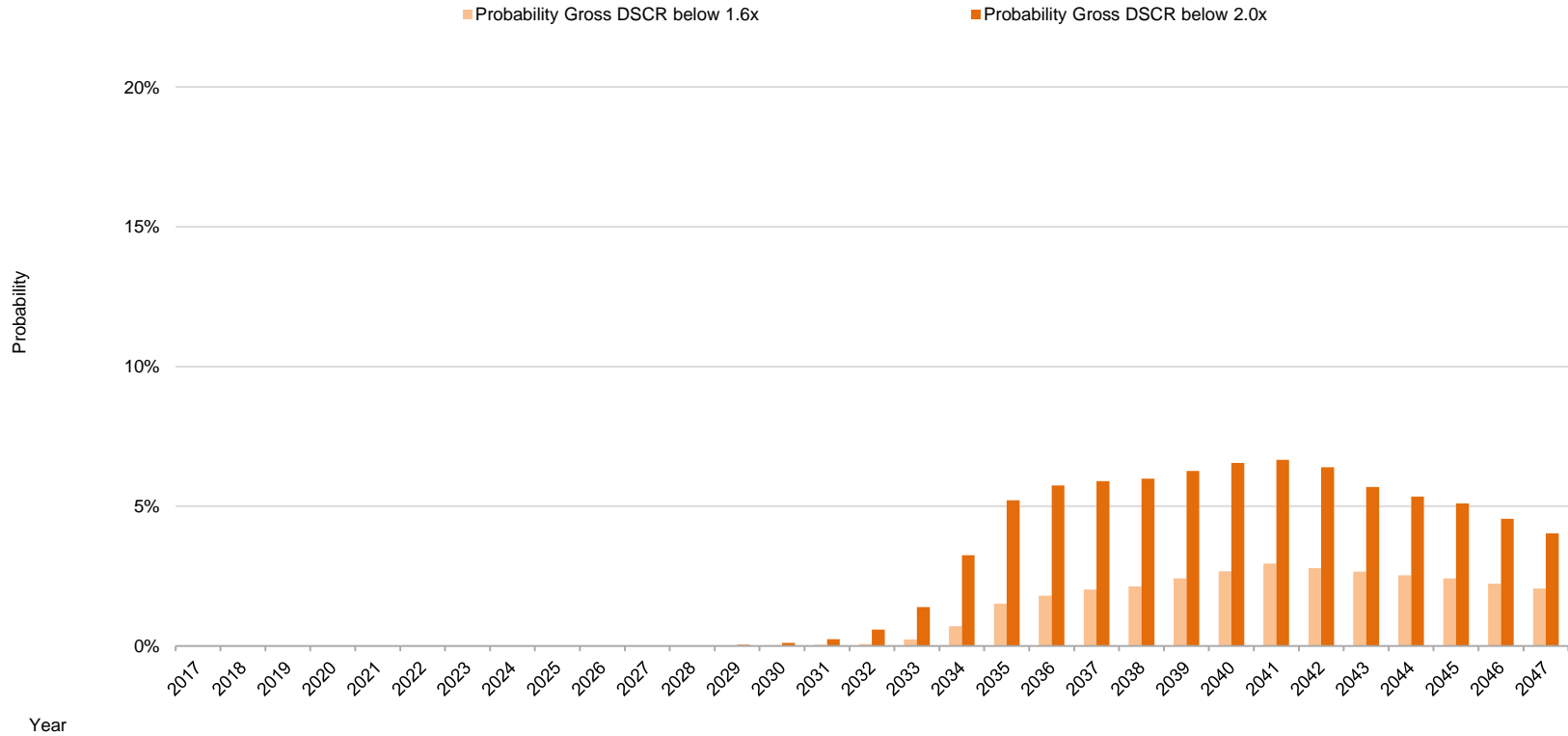
Dynamic Risk Assessment (Monte Carlo)



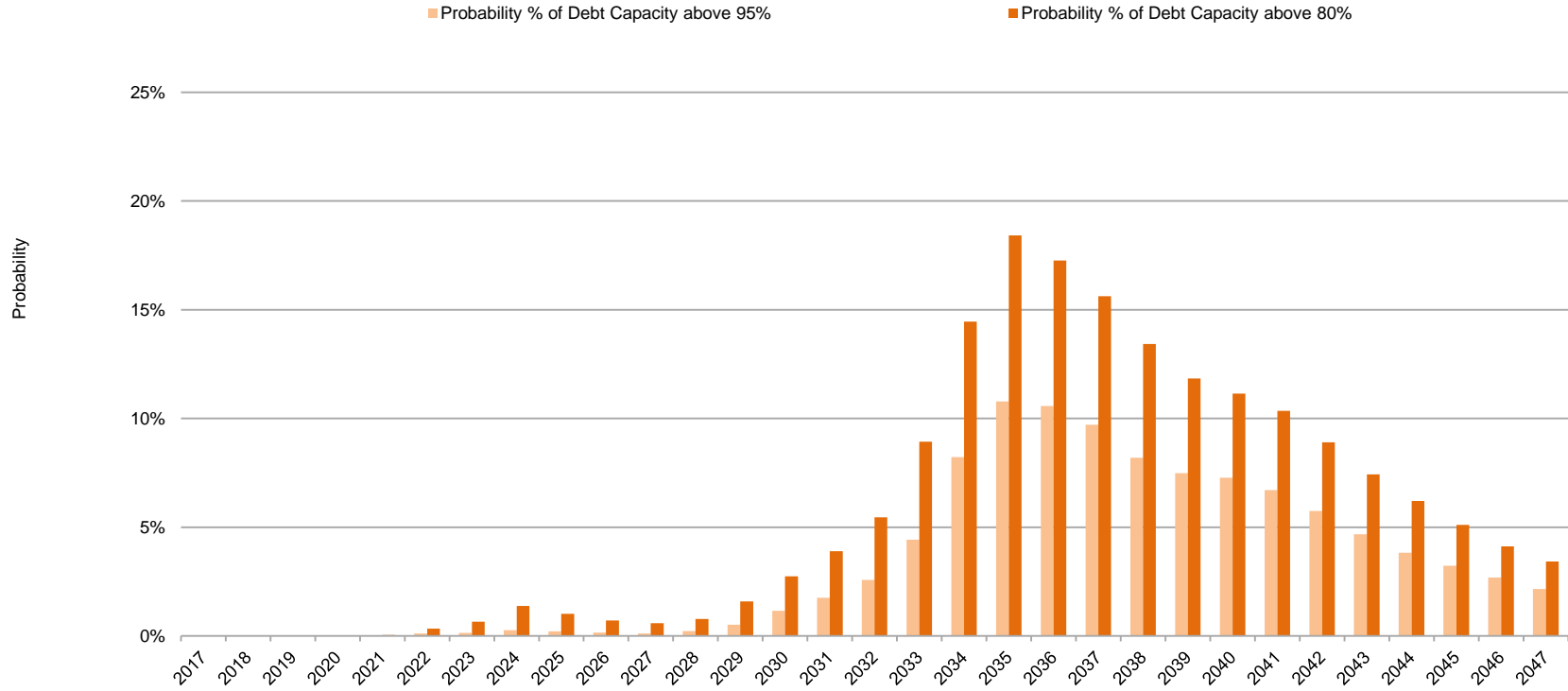
Net Coverage Threshold Probabilities



Gross Coverage Threshold Probabilities



Legal Debt Capacity Threshold Probabilities

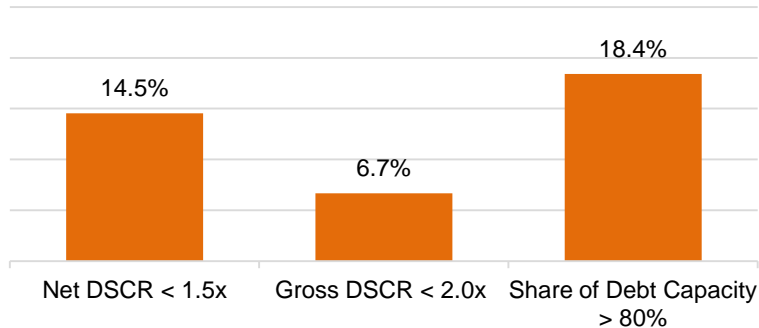


Year

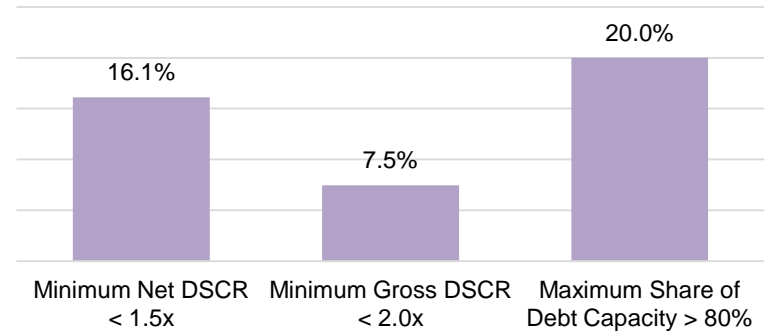
Risk Threshold Probabilities

- In all cases below 20%
- Probability of exceeding borrowing capacity is higher than probability of borrowing more than can be serviced with coverage

Probability in the Least Favorable Year

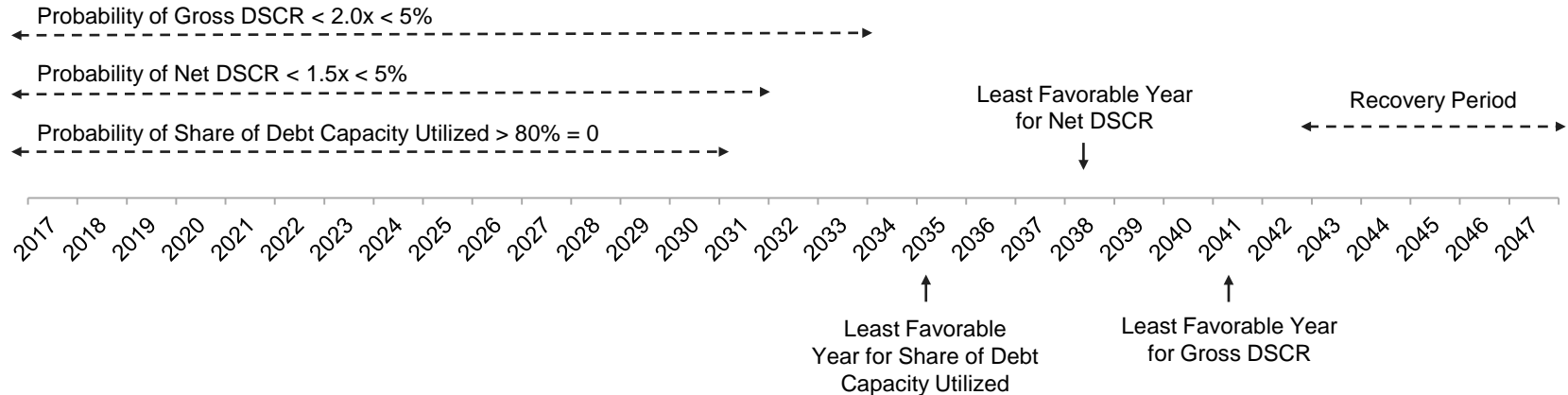


Probability Across Forecast



2033-2042 Critical Periods for Risk

- Minimal risk until approximately 2031
- 2033-2035: Higher risk of exceeding borrowing capacity
- 2038-2043: Higher risk of borrowing more than can be serviced
- After 2043: Low risk (no more debt issued and ST2 debt retires)



Risk Assessment Expected Values

- Risk Assessment shows:
 - MVET and AV expected to be higher (on average) than forecasted
 - Expected values for coverage are greater than the base case values
 - Expected values for share of debt capacity utilized are lower than the base case values
- More upside opportunity for sources than downside risk for uses
 - Expected values for revenues exceed the base case model values by more than the expected values for capital and O&M costs changes
 - Construction cost variance (excluding inflation) has a comparatively small impact
 - Property assessed valuation risk has little effect on property tax revenues (due to statutory growth limits) but creates upside opportunity for debt capacity
- Compounded effects of early year variance in sales tax and MVET growth rates have the most impact on meeting coverage in 2038 (year with highest risk)

Next Steps

- ❑ *Financial Policy: Review by board*
- ❑ *Final ST3 Financial Plan: Mid-June*
- ❑ *Board adoption of plan June 23*