



Economic Regulation Authority

Determination on the 2024 weighted average cost of capital for the freight and urban railway networks, and for Pilbara railways

19 August 2024

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1. Introduction

1. Each year, the Economic Regulation Authority determines a long-term Weighted Average Cost of Capital (WACC) to be applied in the establishment of costs for regulated railways in that year.
2. Regulated railways are those listed in Schedule 1 to the *Railways (Access) Code 2000*. Current rail networks include the Public Transport Authority network, the Arc Infrastructure network, and The Pilbara Infrastructure and Roy Hill Infrastructure railways (the Pilbara Railways).

1.1 Requirements of the Code

3. Schedule 4, clause 3(1) of the Code requires the ERA to make an annual calculation, as at 30 June, of the WACC to be applied to determine the costs for each of the rail networks covered under Schedule 1 of the Code. The ERA must then publish its determination of the WACC for each rail network in the Government Gazette as soon as practicable after it is made (Schedule 4, clause 3(1)(b)):
 - 3 Regulator to determine weighted average cost of capital
 - (1) For the purposes of clause 2(4)(a), the Regulator is to –
 - (a) determine, as at 30 June in each year, the weighted average cost of capital for each of –
 - (i) the railway infrastructure associated with the urban network described in items 49, 50A, 50 and 51 in Schedule 1;
 - (ia) the railway infrastructure associated with the part of the railways network described in item 52 in that Schedule; and
 - (ii) the railway infrastructure associated with the railways network described in the other items in that Schedule;
 - and
 - (b) publish notice of each such determination in the *Gazette* as soon as is practicable after it is made.
 4. The Code also requires the ERA to undertake public consultation every fifth year, commencing in 2003, before determining the WACC values for that year (Schedule 4). The ERA undertook this five-yearly public consultation process prior to making its WACC determination for 30 June 2023.
 5. This determination updates the annual calculation, as at 30 June 2024, of the WACC to be applied to determine the costs for each of the rail networks covered under Schedule 1 of the Code for 2024/25.
 6. The update follows the method set out in the 2023 rail WACC final determination.¹

¹ Economic Regulation Authority, *Final Determination 2023 Weighted Average Cost of Capital for the Freight and Urban Networks, and the Pilbara Railways*, September 2023.

1.2 The 2023 rail WACC review

7. The ERA undertook public consultation prior to making its annual WACC determination for the regulatory year commencing 1 July 2023.
8. The ERA released the final determination in relation to the rail WACC method review in September 2023.² The final determination set out the method for the following regulated rail networks:
 - Public Transport Authority
 - Arc Infrastructure
 - The Pilbara railways.

² Economic Regulation Authority, *Final Determination 2023 Weighted Average Cost of Capital for the Freight and Urban Networks, and the Pilbara Railways*, September 2023.

2. The 2024 rail WACC

9. The ERA has determined the following real pre-tax 2024 rail WACC values, to apply to the 2024 regulatory year, from 1 July 2024 to 30 June 2025.
 - Public Transport Authority: 5.01 per cent
 - Arc Infrastructure: 7.46 per cent
 - The Pilbara railways: 8.94 per cent.
10. The complete set of parameter inputs contributing to these estimates is shown in Table 1.
11. The complete set of international bond samples contributing to the debt risk premium estimates is shown in Appendix 1.
12. The detailed debt risk premium estimates across the three rail businesses are shown in Appendix 2.

Table 1: The ERA's final determination of the rail WACC for the period as at 30 June 2024

	Public Transport Authority	Arc Infrastructure	Pilbara railways
Cost of equity parameters			
Nominal risk free rate (%)	4.32	4.32	4.32
Market risk premium (%)	5.9	5.9	5.9
Equity beta	0.6	0.9	1.1
Nominal after tax return on equity (%)	7.86	9.63	10.81
Cost of debt parameters			
Nominal risk free rate (%)	4.32	4.32	4.32
Benchmark credit rating	A	BBB+	BBB-
Term of debt (year)	10	10	10
Debt risk premium (%)	1.372	1.769	2.511
Debt issuing costs (%)	0.165	0.165	0.165
Nominal return of debt (%)	5.86	6.25	7.00
Other parameters			
Debt proportion (gearing) (%)	50	25	20
Forecast inflation rate (%)	2.42	2.42	2.42
Gamma	0.5	0.5	0.5
Corporate tax rate (%)	30	30	30
Weighted average cost of capital (%)			
Nominal after-tax WACC	6.86	8.79	10.05
Real after-tax WACC	4.33	6.22	7.45
Nominal pre-tax WACC	7.55	10.06	11.57
Real pre-tax WACC	5.01	7.46	8.94

Source: ERA analysis

Appendix 1 International bond sample

Table 2: Public Transport Authority sample

Ticker	Issuer (Short name)
EH437851 Corp	Rio Tinto Finance USA Ltd
ZL449457 Corp	Rio Tinto Finance USA PLC
EI452667 Corp	Rio Tinto Finance USA Ltd
EJ101048 Corp	Rio Tinto Finance USA PLC
EJ329466 Corp	Rio Tinto Finance USA PLC
BS198166 Corp	Rio Tinto Finance USA Ltd
ZL449461 Corp	Rio Tinto Finance USA PLC
ZD173757 Corp	Telstra Group Ltd
ZD173756 Corp	Telstra Group Ltd
ZI759562 Corp	BHP Billiton Finance USA Ltd
ZI759568 Corp	BHP Billiton Finance USA Ltd
ZI759557 Corp	BHP Billiton Finance USA Ltd
ZB945450 Corp	ETSA Utilities Finance Pty Ltd
BQ008251 Corp	AGI Finance Pty Ltd
EJ855408 Corp	BHP Billiton Finance USA Ltd
ZJ001370 Corp	AGI Finance Pty Ltd
ZI759553 Corp	BHP Billiton Finance USA Ltd
BK140531 Corp	Optus Finance Pty Ltd
AR868580 Corp	Victoria Power Networks Finance Pty Ltd
ZL342825 Corp	Telstra Group Ltd
BP960362 Corp	Wesfarmers Ltd
ZD961667 Corp	CSL Finance PLC
ZL271657 Corp	BHP Billiton Finance USA Ltd
ZN679766 Corp	SGSP Australia Assets Pty Ltd
ZD961668 Corp	CSL Finance PLC
EJ372146 Corp	BHP Billiton Finance Ltd
ZI759551 Corp	BHP Billiton Finance USA Ltd
ZL271656 Corp	BHP Billiton Finance USA Ltd

Ticker	Issuer (Short name)
BW023383 Corp	CSL Finance PLC
BM572667 Corp	AGI Finance Pty Ltd
AN129025 Corp	Telstra Corp Ltd
ZD437914 Corp	Victoria Power Networks Finance Pty Ltd
EJ038718 Corp	BHP Billiton Finance USA Ltd
EK875768 Corp	BHP Billiton Finance Ltd
ZB945275 Corp	ETSA Utilities Finance Pty Ltd
ZR653913 Corp	United Energy Distribution Pty Ltd
AO147640 Corp	SGSP Australia Assets Pty Ltd
LW938501 Corp	SGSP Australia Assets Pty Ltd
ZO283166 Corp	SGSP Australia Assets Pty Ltd
BP960220 Corp	Wesfarmers Ltd
ZK143698 Corp	Telstra Group Ltd
BP151662 Corp	Australian Gas Networks Ltd
EJ651064 Corp	BHP Billiton Finance Ltd
AP811577 Corp	Telstra Corp Ltd
BR897356 Corp	Wesfarmers Ltd
AZ151179 Corp	Optus Finance Pty Ltd
AX729250 Corp	Telstra Corp Ltd
EJ372241 Corp	BHP Billiton Finance Ltd
BW018337 Corp	CSL Finance PLC
ZN734842 Corp	SGSP Australia Assets Pty Ltd
BS422627 Corp	Optus Finance Pty Ltd
BH885805 Corp	Telstra Corp Ltd
BP151663 Corp	Australian Gas Networks Ltd
BS841983 Corp	SGSP Australia Assets Pty Ltd
ED104267 Corp	WMC Finance USA Ltd
BQ008260 Corp	AGI Finance Pty Ltd
BW016119 Corp	CSL Finance PLC
BW021641 Corp	CSL Finance PLC

Ticker	Issuer (Short name)
BP046707 Corp	Victoria Power Networks Finance Pty Ltd
BW018087 Corp	CSL Finance PLC
ZJ494337 Corp	AGI Finance Pty Ltd
AO674434 Corp	Victoria Power Networks Finance Pty Ltd
BW023426 Corp	CSL Finance PLC
BQ269730 Corp	Victoria Power Networks Finance Pty Ltd
ZD854610 Corp	United Energy Distribution Pty Ltd
DD109142 Corp	WMC Finance USA Ltd
BS474087 Corp	SGSP Australia Assets Pty Ltd
BG116601 Corp	SGSP Australia Assets Pty Ltd
ZK040719 Corp	Optus Finance Pty Ltd
BM363856 Corp	Victoria Power Networks Finance Pty Ltd
BQ959130 Corp	Victoria Power Networks Finance Pty Ltd
AZ677851 Corp	SGSP Australia Assets Pty Ltd
ZH408409 Corp	Victoria Power Networks Finance Pty Ltd
ZR723028 Corp	United Energy Distribution Pty Ltd
ZK181186 Corp	ETSA Utilities Finance Pty Ltd
BG207158 Corp	ETSA Utilities Finance Pty Ltd
ZJ908084 Corp	Victoria Power Networks Finance Pty Ltd
AS177694 Corp	Victoria Power Networks Finance Pty Ltd
ZD639841 Corp	Toyota Finance Australia Ltd
ZI799343 Corp	Toyota Finance Australia Ltd
ZI799370 Corp	Toyota Finance Australia Ltd
BH621666 Corp	Toyota Finance Australia Ltd
ZB973856 Corp	PACCAR Financial Pty Ltd
ZL951152 Corp	Toyota Finance Australia Ltd
BT335203 Corp	Toyota Finance Australia Ltd
ZI799353 Corp	Toyota Finance Australia Ltd
BX334069 Corp	Toyota Finance Australia Ltd

Table 3: Arc Infrastructure sample

Ticker	Issuer (Short name)
ZB459059 Corp	Sydney Airport Finance Co Pty Ltd
ZB043900 Corp	Glencore Funding LLC
ZB809638 Corp	AusNet Services Holdings Pty Ltd
ZK169109 Corp	Transurban Finance Co Pty Ltd
ZB653276 Corp	Glencore Capital Finance DAC
ZB043902 Corp	Glencore Funding LLC
ZK599882 Corp	AusNet Services Holdings Pty Ltd
ZG257510 Corp	Coles Group Treasury Pty Ltd
ZB595114 Corp	Sydney Airport Finance Co Pty Ltd
ZB043895 Corp	Glencore Funding LLC
ZQ348432 Corp	Coles Group Treasury Pty Ltd
ZL510320 Corp	Brambles Finance PLC
ZH164939 Corp	Glencore Funding LLC
ZB595113 Corp	Sydney Airport Finance Co Pty Ltd
ZK141749 Corp	Sydney Airport Finance Co Pty Ltd
ZG257511 Corp	Coles Group Treasury Pty Ltd
ZO072844 Corp	Aurizon Network Pty Ltd
ZB043889 Corp	Glencore Funding LLC
YX004041 Corp	CNH Industrial Capital Australia Pty Ltd
ZD419945 Corp	Transurban Finance Co Pty Ltd
ZD372774 Corp	Australia Pacific Airports Melbourne Pty Ltd
EI866858 Corp	Glencore Finance Canada Ltd
ZH096775 Corp	WestConnex Finance Co Pty Ltd
BO733251 Corp	WestConnex Finance Co Pty Ltd
BO221170 Corp	Glencore Capital Finance DAC
ZD419952 Corp	Transurban Finance Co Pty Ltd
ZS562160 Corp	Transurban Finance Co Pty Ltd
ZO292719 Corp	Glencore Capital Finance DAC
ZO408308 Corp	Transurban Finance Co Pty Ltd

Ticker	Issuer (Short name)
AR226811 Corp	AusNet Services Holdings Pty Ltd
AX393924 Corp	Woodside Finance Ltd
BO149790 Corp	Aurizon Finance Pty Ltd
ZK475940 Corp	Australia Pacific Airports Melbourne Pty Ltd
BO221169 Corp	Glencore Capital Finance DAC
ZH164936 Corp	Glencore Funding LLC
ZS106969 Corp	Glencore Finance Europe Ltd
BV508582 Corp	AusNet Services Holdings Pty Ltd
ZO140969 Corp	Glencore Funding LLC
ZO057190 Corp	Coles Group Treasury Pty Ltd
AX523734 Corp	Glencore Funding LLC
BG070568 Corp	AusNet Services Holdings Pty Ltd
EH033131 Corp	Glencore Finance Canada Ltd
BR468472 Corp	Glencore Funding LLC
ZH164934 Corp	Glencore Funding LLC
BP375805 Corp	Newcastle Coal Infrastructure Group Pty Ltd
BV712840 Corp	South32 Treasury Ltd
AM402825 Corp	AusNet Services Holdings Pty Ltd
AZ593934 Corp	AusNet Services Holdings Pty Ltd
AP678913 Corp	Glencore Funding LLC
BR468470 Corp	Glencore Funding LLC
EJ410755 Corp	Glencore Finance Canada Ltd
EK755216 Corp	AusNet Services Holdings Pty Ltd
ZJ581828 Corp	CNH Industrial Capital Australia Pty Ltd
BP207481 Corp	Glencore Funding LLC
AP094552 Corp	Newcastle Coal Infrastructure Group Pty Ltd
ZK471937 Corp	Glencore Funding LLC
AM946329 Corp	Glencore Funding LLC
BH496203 Corp	Transurban Finance Co Pty Ltd
AO953984 Corp	Transurban Finance Co Pty Ltd

Ticker	Issuer (Short name)
ZB043892 Corp	Glencore Funding LLC
AZ347082 Corp	Transurban Finance Co Pty Ltd
ZQ348382 Corp	Coles Group Treasury Pty Ltd
BJ368115 Corp	Newcrest Finance Pty Ltd
ZK471938 Corp	Glencore Funding LLC
AS241348 Corp	Sydney Airport Finance Co Pty Ltd
BP207479 Corp	Glencore Funding LLC
QZ418350 Corp	Transurban Finance Co Pty Ltd
BK686434 Corp	AusNet Services Holdings Pty Ltd
AP044525 Corp	Woodside Finance Ltd
QZ372379 Corp	Woodside Finance Ltd
BJ368112 Corp	Newcrest Finance Pty Ltd
AP138040 Corp	Brambles Finance PLC
QZ932852 Corp	Australia Pacific Airports Melbourne Pty Ltd
BK686761 Corp	AusNet Services Holdings Pty Ltd
EI870493 Corp	Newcrest Finance Pty Ltd
AR408024 Corp	AusNet Services Holdings Pty Ltd
BK686424 Corp	AusNet Services Holdings Pty Ltd
ZJ016898 Corp	AusNet Services Holdings Pty Ltd
AS664625 Corp	AusNet Services Holdings Pty Ltd
AS664612 Corp	AusNet Services Holdings Pty Ltd
BK686432 Corp	AusNet Services Holdings Pty Ltd
AR408188 Corp	AusNet Services Holdings Pty Ltd
ZD669945 Corp	Ausgrid Finance Pty Ltd
ZD308453 Corp	Brisbane Airport Corp Pty Ltd
YX146400 Corp	Arc Infrastructure Wa Pty Ltd
YX187560 Corp	Amcor UK Finance PLC
BR642545 Corp	Woolworths Group Ltd
BO485268 Corp	APA Infrastructure Ltd
AS197471 Corp	Transurban Queensland Finance Pty Ltd

Ticker	Issuer (Short name)
BK647179 Corp	Ausgrid Finance Pty Ltd
BJ442776 Corp	Woolworths Group Ltd
ZH661970 Corp	QPH Finance Co Pty Ltd
QJ190880 Corp	BHP Billiton Finance Ltd
ZH661603 Corp	Transurban Queensland Finance Pty Ltd
BK182364 Corp	Brisbane Airport Corp Pty Ltd
BJ085023 Corp	APA Infrastructure Ltd
BO485266 Corp	APA Infrastructure Ltd
AS344445 Corp	Ausgrid Finance Pty Ltd
BP151661 Corp	Transurban Queensland Finance Pty Ltd
BR318092 Corp	Woolworths Group Ltd
BK182313 Corp	Brisbane Airport Corp Pty Ltd
EK805538 Corp	APA Infrastructure Ltd
BK534389 Corp	QPH Finance Co Pty Ltd
ZL914868 Corp	Worley Financial Services Pty Ltd
BK099175 Corp	Arcor UK Finance PLC
EK805526 Corp	APA Infrastructure Ltd
BO485269 Corp	APA Infrastructure Ltd
EK807839 Corp	APA Infrastructure Ltd
AO547987 Corp	Dyno Nobel Finance LLC
BR555926 Corp	Ausgrid Finance Pty Ltd
AM796866 Corp	APA Infrastructure Ltd
BR642542 Corp	Woolworths Group Ltd
AX613734 Corp	APA Infrastructure Ltd
BK534344 Corp	QPH Finance Co Pty Ltd

Table 4: The Pilbara railways sample

Ticker	Issuer (Short name)
AX518215 Corp	Santos Finance Ltd
ZR653898 Corp	Pacific National Finance Pty Ltd
BO357863 Corp	AusNet Services Holdings Pty Ltd
ZO526158 Corp	AusNet Services Holdings Pty Ltd
BR221504 Corp	Pacific National Finance Pty Ltd
AO951980 Corp	Santos Finance Ltd
AR620052 Corp	Pacific National Finance Pty Ltd
BP548462 Corp	CIMIC Finance Ltd
ZD823014 Corp	CIMIC Finance USA Pty Ltd
AN441270 Corp	Pacific National Finance Pty Ltd
ZL946367 Corp	Northern Star Resources Ltd
ZI773013 Corp	Santos Finance Ltd
AN191913 Corp	Pacific National Finance Pty Ltd
BP221177 Corp	Santos Finance Ltd
ZD669945 Corp	Ausgrid Finance Pty Ltd
ZD308453 Corp	Brisbane Airport Corp Pty Ltd
YX146400 Corp	Arc Infrastructure Wa Pty Ltd
YX187560 Corp	Amcor UK Finance PLC
BR642545 Corp	Woolworths Group Ltd
BO485268 Corp	APA Infrastructure Ltd
AS197471 Corp	Transurban Queensland Finance Pty Ltd
BK647179 Corp	Ausgrid Finance Pty Ltd
BJ442776 Corp	Woolworths Group Ltd
ZH661970 Corp	QPH Finance Co Pty Ltd
QJ190880 Corp	BHP Billiton Finance Ltd
ZH661603 Corp	Transurban Queensland Finance Pty Ltd
BK182364 Corp	Brisbane Airport Corp Pty Ltd
BJ085023 Corp	APA Infrastructure Ltd
BO485266 Corp	APA Infrastructure Ltd

Ticker	Issuer (Short name)
AS344445 Corp	Ausgrid Finance Pty Ltd
BP151661 Corp	Transurban Queensland Finance Pty Ltd
BR318092 Corp	Woolworths Group Ltd
BK182313 Corp	Brisbane Airport Corp Pty Ltd
EK805538 Corp	APA Infrastructure Ltd
BK534389 Corp	QPH Finance Co Pty Ltd
ZL914868 Corp	Worley Financial Services Pty Ltd
BK099175 Corp	Amcor UK Finance PLC
EK805526 Corp	APA Infrastructure Ltd
BO485269 Corp	APA Infrastructure Ltd
EK807839 Corp	APA Infrastructure Ltd
AO547987 Corp	Dyno Nobel Finance LLC
BR555926 Corp	Ausgrid Finance Pty Ltd
AM796866 Corp	APA Infrastructure Ltd
BR642542 Corp	Woolworths Group Ltd
AX613734 Corp	APA Infrastructure Ltd
BK534344 Corp	QPH Finance Co Pty Ltd

Appendix 2 Debt risk premium estimates

Debt risk premium estimation method

1. The ERA has estimated the debt risk premium as at 30 June 2024 consistent with the method detailed in the 2023 rail WACC final determination.
2. The ERA's revised bond yield approach involves the following steps:
 - Step 1: Determining the benchmark sample – Identifying a sample of relevant domestic and international corporate bonds that reflect the credit rating of the benchmark credit entity.
 - Step 2: Collecting data and converting yields to Australian dollar equivalents.
 - Step 3: Averaging yields over the averaging period – Calculating an average Australian dollar equivalent bond yield for each bond across the averaging period.
 - Step 4: Estimating curves – Estimating yield curves on this data by applying the Gaussian Kernel, Nelson-Siegel and Nelson-Siegel-Svensson techniques.
 - Step 5: Estimating cost of debt – calculating the 10-year return on debt estimate for each of the yield curves in the benchmark sample and augmented benchmark sample. Adjusting the bias of return on debt estimates from the augmented sample.
 - Step 6: Calculating the debt risk premium – calculating the debt risk premium by subtracting the 10-year risk free rate from the 10-year return on debt.
3. These steps determine the debt risk premium at a point in time, being the date of calculation.
4. To mitigate errors that may arise given the data limitations, the ERA augments the bond sample:
 - The Public Transport Authority sample is extended from the A benchmark to A+/A/A-.
 - The Arc Infrastructure sample is extended from the BBB+ benchmark to BBB+/BBB.
 - The Pilbara railways sample is extended from the BBB- benchmark to BBB/BBB-.
5. To mitigate potential bias, the ERA first establishes the direction of the bias:
 - If the bias of the augmented sample-based estimate is likely to be downward, the ERA uses the highest augmented sample-based estimate coming from the three estimation methods. This estimate is then averaged with the highest estimate from the original benchmark rated sample.
 - The opposite approach is conducted if the bias is likely to be upward.

2024 Debt risk premium estimates

6. The 2024 debt risk premium estimates for each of the Western Australian rail networks are summarised as below.

7. In 2024 the samples are augmented as follows:
- The Public Transport Authority sample was extended from the A benchmark to A+/A/A- increasing the sample from 7 to 87 bonds.
 - The Arc Infrastructure sample was extended from the BBB+ benchmark to BBB+/BBB increasing the sample from 82 to 114 bonds.
 - The Pilbara railways sample was extended from the BBB- benchmark to BBB/BBB- increasing the sample from 14 to 46 bonds.

Table 5: 2024 Public Transport Authority – Augmented and original benchmark sample debt risk premium estimates (%)

Approach	High	Mid	Low
A	1.366	1.338	1.314
A+/A/A-	1.529	1.465	1.430
Average of two lowest estimates			1.372

Source: ERA analysis, Bloomberg. The estimates use an averaging period to 30 June 2024.

8. The augmented Public Transport Authority sample is extended to allow the inclusion of A+ and A- rated bonds. Compared to the small addition of A+ bonds added to the sample, there are substantially more A- bonds added. The larger number of A- bonds with a lower credit rating will tend to bias the estimates upward. For this reason, the lowest of the augmented sample-based estimates (1.430 per cent) is averaged with the lowest A rated sample-based estimate (1.314 per cent) to produce an estimate of 1.372 per cent (see table above).

Table 6: 2024 Arc Infrastructure – Augmented and original benchmark sample debt risk premium estimates (%)

Approach	High	Mid	Low
BBB+	1.815	1.808	1.772
BBB+/BBB	1.840	1.802	1.766
Average of two lowest estimates			1.769

Source: ERA analysis, Bloomberg. The estimates use an averaging period to 30 June 2024.

9. The augmented Arc Infrastructure BBB+ sample is extended to allow the inclusion of BBB rated bonds. The addition of bonds with a lower credit rating will tend to bias the estimates upward. In addition, the yield variance might reflect the slightly different levels of risks for the bonds with the same credit rating. To mitigate for the addition of BBB bonds, the lowest BBB+ rated sample-based estimate (1.772 per cent) was averaged with the lowest of the augmented sample-based estimates (1.766 per cent) to produce an estimate of 1.769 per cent (see table above).

Table 7: 2024 Pilbara railways – Augmented and original benchmark sample debt risk premium estimates (%)

Approach	High	Mid	Low
BBB-	2.694	2.619	2.477
BBB/BBB-	2.328	2.034	1.987
Average of two highest estimates	2.511		

Source: ERA analysis, Bloomberg. The estimates use an averaging period to 30 June 2024.

10. The augmented Pilbara railways BBB- sample is extended to allow the inclusion of BBB rated bonds. The addition of bonds with a higher credit rating tended to bias the estimates downward. For this reason, the highest of the augmented sample-based debt risk premium estimates (2.328 per cent) was averaged with the highest BBB- rated sample-based estimate (2.694 per cent) to produce an estimate of 2.511 per cent (see table above).
11. For this final determination, using the averaging period to 30 June 2024, the 2024 debt risk premium estimates across the three rail businesses are:
 - 1.372 per cent for the Public Transport Authority
 - 1.769 per cent for Arc Infrastructure
 - 2.511 per cent for Pilbara railways.