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Input methodologies review: Technical consultation on updates to draft determinations

We welcome the opportunity to comment on the Commerce Commission's Technical consultation update paper, and the revised draft Input Methodologies Amendments Determination 2016 documents, released 13 October 2016.

Our comments on the Input Methodologies (IMs) review process have been favourable as we think it has been well planned and executed. However, the latest consultation has created some difficulties because, while presented as a technical consultation, it contains significant new policy proposals that interested parties have not previously had an opportunity to comment on.

While the primary focus of our submission is on "technical implementation" matters, on which the Commission seeks comment, we also comment on and provide evidence in relation to the new policy proposals and related matters. We recognise the Commission has not invited submissions on these aspects but consider the material we provide will help enable robust, evidence based decisions that better promote the purpose of Part 4 and the IMs.

In this submission we make the following key points:

1. **Technical review:** we provide suggested amendments, categorised and with explanatory comments in mark-up form. We encourage the Commission to carefully consider our suggestions and not to be dissuaded from clarifying and improving drafting by the December decision target.

2. **Debt issuance costs:** We support recovery of debt issuance costs through opex. For clarity and certainty we recommend the IMs also:

   - define operating costs to include debt issuance costs that allow suppliers to recover the efficient costs incurred by a prudent portfolio manager;[1] and

   - require the Commission itemise the debt issuance cost allowance in each price path reset.

3. **Historical averaging:** Adoption of historical averaging is superior to the current rate of the day (ROTD) approach, be it for debt premium (as proposed) or Risk Free Rate (RfR) or both.

   If historical averaging is applied we consider it should apply to both debt premium and the RfR and, if a 5-year term is applied (for historical averaging or a trailing average cost of debt) then the Term Credit Spread Differential (TCSD) should be retained.

   Notwithstanding our view that historical averaging is superior to ROTD we consider a TACD is superior to both alternatives and enclosed in this submission is evidence demonstrating this.

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[1] Including where these are expressed in basis points terms, for example interest rate swaps and forward start swaps.

4. **Other WACC related matters:**

- **Nelson Seigel Svensson (NSS):** We consider the approach reasonable, but are concerned about the transparency in the use of non BBB+ rated bounds and the "dummy" variables adopted to allow for inclusion of the higher and lower rated bonds in the model

- **TCSD:** We consider the (XX) referred to in 2.4.8(1)(a) should reflect a reasonable average of the annual incremental credit addition. Determined on current rates this is closer to 8 bps then the proposed 5 basis points (bps).

We recognise the Commission is concurrently working through a complex policy issues and detailed technical drafting. We encourage the Commission to provide interested parties, in particular those required to comply with the IMs, the opportunity for further review before the IMs are finalised[2] (particularly for provisions that are new or materially altered).

Review of the technical drafting to implement the Commission's policy decisions

Our recommendations on the technical drafting are provided in mark-up format in Appendix A to this submission. In Appendix A we categorise our recommendations and explain the basis for each.

Our recommendations are, in the main, intended to improve the clarity and workability of the Transpower IMs, for example by:

- Addressing inconsistent terminology: e.g., "determine" and "estimate" are used to describe how certain values are produced (e.g. compare clauses 2.4.1(1) ("Commission will determine"), 2.4.3 ("Commission will estimate") and 2.4.4(3) ("Commission will determine an estimate"));

- Removing redundant definitions: e.g., the definitions of the estimates of the 67th and 75th percentile WACCs are not used in the IMs;

- Removing transition provisions that are no longer relevant: e.g., clause 3.18.6 in relation to IRIS; and

- Clarifying meaning or intention: e.g., clause 3.5.10 does not make it clear that it is the 67th percentile WACC which is the WACC to be used for the purpose of setting a price path under an IPP determination.

Appendix A also includes two versions of subpart 5 on WACC. The first version reflects our suggestions for aligning the WACC determination for information disclosure and price-quality paths.[3] The second version provides our drafting suggestions, if our alignment recommendation is rejected, to tidy-up the drafting of the subpart.

Selected proposals relating to the cost of capital IMs

We acknowledge the current consultation is intended to be predominantly technical in nature, with the Commission inviting submissions on "our updated views" and "whether the drafting in the revised draft determinations accurately gives effect to our June draft decisions".[4]

The technical consultation update paper provides new proposals on treatment of debt issuance costs and introduction of an alternative 'historical averaging' approach to estimating debt premium, and

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[2] We understand this was not done for the 2010 determinations and consider this contributed to significant unnecessary consequential clarification and amendment requests.

[3] Refer to the discussion in the section "Alignment of the WACC determination for information disclosure and for price-quality paths".

[4] Commerce Commission, Notification email – Input methodologies review – Technical consultation update paper – 13 October 2016.

describes the discussion on each of these as "Further explanation". Although we consider both proposals to be superior to current settings both are, in fact, new proposals that have not been consulted on or explained previously.

We consider it reasonable to limit submissions to the *technical implementation of the proposed approach* for proposals that stakeholders have already had an opportunity to submit on but are uncomfortable with this limitation appropriate in respect of substantive new proposals.

Consequently, we provide some (limited) comment and further evidence on these substantive new proposals and related implementation matters.

Proposal to remove debt issuance costs from the cost of debt

We agree with the Commission's proposal to treat debt issuance costs as regulatory cash flows rather than as a component of the cost of debt.[5] We consider that this would allow the Commission to ensure the efficient costs of prudent debt management are defined and compensated (and to reduce the risk that individual firms are under or over compensated).

We note the Commission's suggestion that the removal of the debt issuance costs from the cost of debt equation would not require any other changes to the IMs, including the definition of operating costs. Although we agree the current operating costs definition does not exclude debt issuance costs, we recommend the following minor changes to the IMs to implement this proposal:

1. Amend the operating cost definition explicitly provide for debt issuance costs;

2. Debt issuance should be defined to include fees and risk premiums associated with prudent debt issuance and management priced into interest rate derivative instruments; and

3. A requirement on the Commission to itemise the debt issuance cost allowance in each price reset, including for IPPs, DPPs and CPPs.

We consider these changes, while minor, would improve clarity and certainty, in respect of the treatment of debt issuance costs at each price reset, for suppliers, consumers and the Commission.

This process has helped highlight that the efficient cost of prudent debt portfolio management differs depending on the size and nature of the firm. It has established, for example, that costs can be higher for larger issuers (due to the need to part fund debt from overseas sources, etc.). Also, that under current settings[6], the delay between the determination window and the start of the control period necessitates use of forward starting swaps (which incur a premium approximately 15 – 25bps over vanilla five year swaps).

We consider that the onus should be on regulated suppliers to demonstrate efficient and prudent costs. This would then allow the Commission to scrutinise cost estimates, to adjust if necessary and then to rely on the incremental rolling incentive scheme (IRIS) to provide suppliers to minimise issuance costs.

Alternative 'historical averaging' approach to estimating the debt premium

The Commission has stated that it is "still considering whether the purpose of Part 4 is best met by maintaining the approach outlined in the draft decision (i.e., the use of a prevailing estimate for the debt premium) or applying an alternative 'historical averaging approach' for the debt premium".[7]

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[5] Commerce Commission, IMs review, Technical consultation update paper, 13 October 2016, paragraph 77.
[6] This 15-25bps cost is an artefact of the ROTD approach and would not be incurred under a TACD.
[7] Commerce Commission, IMs review, Technical consultation update paper, 13 October 2016, paragraph 87.

It is unclear where this leaves the TACD option and the treatment of the RfR. We are of the view that:

1. **An historic average would be an improvement on ROTD:** An historic average would help shift away from consumers and regulated suppliers taking a regulatory 'lottery' in a single one-month (or three-month) window every 5-years.

2. **An historical average would be an improvement on the rate on the day (ROTD) approach:** An historical average would help shift away from consumers and regulated suppliers taking a regulatory 'lottery' in a single one-month (or three-month) window every 5-years.

3. **An historical average approach is inferior to TACD:** Though superior to the current ROTD approach, an historical average has the following disadvantages relative to a TACD:

   - A regulated supplier could not replicate the approach. Over the course of the regulatory period, the market-determined debt premium faced by suppliers is likely to depart from the debt premium locked in at the start of the regulatory period. There is no way for suppliers to match the debt premium faced in any year of the regulatory period to the historical average debt premium locked in at the start of the period. Consumers would also be fully exposed to such mismatches. If the regulated supplier adopts a 5-year trailing average, the historical averaging approach would accurately reflect its cost of debt in the first year of the regulatory period, but include one outdated year in the 2nd year, and two outdated years in the 3rd year and so on, getting increasingly inaccurate over the regulatory period; and

   - For a regulated supplier that adopted a 10-year staggered debt portfolio (which is an efficient debt management approach for large suppliers like Transpower), the historical average debt premium locked in at the start of the regulatory period would reflect the cost of only 50% of the efficient debt portfolio constructed by that supplier.

Before a historical average could be preferred over a ROTD or TACD approach the average accuracy of the WACC estimates over the 5-years of the regulatory period should be tested against that of a hypothetical efficient supplier's debt funding approach.

We also note the Commission had previously stated that ROTD "better achieved the Part 4 purpose and the potential dynamic efficiency benefits of investment, than the use of historical rates".[8] The historical averaging approach, by definition, exclusively uses historical rates while the TACD approach uses a mix of historical and periodically updated rates (for each year of the 5-year regulatory period). The ROTD approach uses a rate which becomes redundant one year after it is determined.

The technical consultation update paper makes reference to the Commission wanting any averaging approach to "provide limited complexity in the WACC estimation process to ensure the benefits outweigh the costs".[9]

As Frontier Economics notes in the attached report (at Appendix B), a TACD allowance that is updated annually would not be complex or costly to implement. The TACD allowance could be updated immediately following the annual information disclosure determination update, which would be an efficient means involving no additional administration burden over and above existing processes for the Commission. Significantly, this change could also eliminate or substantially reduce the 15-25bps cost of entering into forward starting interest rate swaps, which would be in the long-term interests of consumers.

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[8] Commerce Commission, IMs review, Update paper on the cost of capital topic, 30 November 2015, paragraph 3.17.
[9] Commerce Commission, IMs review, Technical consultation update paper, 13 October 2016, paragraph 93.

The Frontier report also discusses the "historic averaging" option, which supports our view that while historic averaging is superior to ROTD, TACD should be preferred over both alternatives.

4. **The TACD (or historic averaging) approach, should apply to both debt premium and the RfR:**
   We consider the application of a trailing average important to both the debt premium and RfR as the two rates share a close inverse correlation.[10]

   Mismatching the update of each in the WACC calculation results in additional mismatch risk to the regulated supplier, increased intra RCP price volatility to the consumer and increased cost to the consumer where repricing volume is concentrated through a narrow determination window.

Appendix C illustrates a potential transition to a TACD RfR using market quoted government bond forward rates to determine transition rates for the years required to construct a five-year average, i.e.; 1, 2, 3, 4 and 5-year data points.

Appendix C also illustrates how the trailing average could work in future years.

Debt premium estimation: Decision CC15, clauses 2.4(3)-(4) and 3.5.4(3)-(4) of the Revised Draft Determination

We consider the Nelson Seigel Svensson (NSS) approach to be reasonable. However, we are concerned by and have raised previously issues with transparency in the use of non BBB+ rated bonds and the "dummy" variables adopted to allow for inclusion of the higher and lower rated bonds to the model.

These issues have not been addressed by the Commission, and we consider that adoption of the NSS methodology requires further consultation.

TCSD clarification: Decision CC16, clause 3.5.8(3) of the Revised Draft Determination

We consider the (XX) referred to in 2.4.8(1)(a) should reflect a reasonable average of the annual incremental credit addition.

Determined on current rates, this is closer to 8bps, than the proposed 5bps on Transpower's or other domestic issuer's domestic debt. We are not familiar with the analysis performed and basis of arriving at the 5 bps and consider this requires greater transparency and consideration. Otherwise, the clarification of the TCSD appears an improvement on the prior TCSD methodology.

For the avoidance of doubt, our preference is to adopt a 10-year TACD for the debt premium, based upon our analysis presented in Transpower's IM review submissions to date.

Alignment of the WACC determination for information disclosure and for price-quality paths

We agree with the sentiment of paragraph 95 of Appendix A of the consultation paper (allowing a simple estimation procedure). We have previously supported alignment of the WACC for information disclosure (ID) and price-quality purposes, including on grounds of clarity and simplicity.

We note that the WACC for ID and price-quality purposes do not currently align in the draft IMs. This is because:

1. The WACC determination for price-quality paths is calculated on an ex ante basis (before the regulatory period) while the ID WACC is calculated on an ex post basis (after the start of the regulatory period); and

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[10] Debt premium (credit spread or margin) and interest rates have a reasonable inverse correlation i.e. as interest rates fall, debt premiums rise and as interest rates rise, debt premiums fall.

2. The price-quality path WACC determination currently occurs once every 5-years, while the ID WACC is updated annually (this would not applicable if a TACD approach is adopted).

We presume this disconnect is intentional but our drafting suggestions in Appendix A include amendments (involving a wash-up) to align the price-quality and Information Disclosure WACC determinations. This drafting has the effect of simplifying and reducing the required text in the IMs (and illustrating how a TACD could be implemented).

Please let me know if you have any questions or would like to discuss any aspect of this submission.

Yours sincerely,

Jeremy Cain
Regulatory Affairs & Pricing Manager

Appendix A: Drafting suggestions for the [REVISED DRAFT] Transpower Input Methodologies Amendments Determination 2016

[This appendix contains our drafting suggestions for the revised draft. Please refer to separate document].

Appendix B: Frontier Economics' memo on "historic averaging"

[This appendix contains a memo by Frontier Economics, commissioned by Transpower, in response to the "historic averaging" proposal in Attachment A of the Commerce Commission's Input Methodologies Review: Technical consultation update paper, 13 October 2016. Please refer to separate document].

Appendix C: A worked example of transition to a TACD

We consider transition to a TACD could be approached on the basis of:

1. Adopting a historical trailing average for the Debt Premium commencing from the start of RCP3 in 2020 using rates determined from historical information disclosures over the preceding five years;

    a. this application of historical rates for the Debt Premium is appropriate as regulated suppliers efficient debt management/issuance is incremental over historical periods i.e.: there is a legacy of transactions with contractual consequence which it is reasonable to recognise.

2. Adopting a trailing average for the RfR at the start of the RCP3 using interest rates (determined from the prevailing government bond yield curve);

    a. the application would initially apply forward rates of 1, 2, 3, 4 and 5 year (20% exposure weighting for each of the five years) at transition;

    b. given the volume of interest rate swaps at transition, we consider a wider determination window should be considered (although the volume by tenor 1 year, 2 year, 3 year, 4 year, 5 year will be easier to place than the volume by 5yr tenor only), with three month windows determined under the information disclosure purposes appropriate going forward;

    c. Subsequently, maturing interest rate exposures, such as the 20% exposure maturing after year one will be replaced with 20% weighting to the five year rate applying at the subsequent information disclosure determination window;

    d. this adoption of "forward rates" (rates for one year, two year,… five year tenors) at transition is appropriate, as efficient debt portfolio managers will have entered into interest rate swaps matching the RCPs. The current portfolio off interest rate swap hedges will mature at the end of RCP2 and the new approach can be implemented from the start of RCP3.

A worked example of the transition and trailing average approach is detailed below.

1. **Debt Premium Transition**

		Corporate - government 5 year bond	Trailing Average Cost of Debt (TACD)	Trailing Average Debt Premium
Period	Disclosure year	3m average Debt Premium (bps)	TACD formula	TACD (bps)
3 months	2015	165		
3 months	2016	200		
3 months	2017	160		
3 months	2018	180		
3 months	2019	190		
3 months	2020	220	=(200+160+180+190+220)/5	190

On transition the historical trailing average determined from the five year history of information disclosures should be adopted, similar to the worked example above.

2. **Risk Free Rate Transition**

Benchmark	Tenor	Rate (bps)	Formula	Trailing Average transition RfR (bps)
Government bond forward curve	1 year	270		
	2 year	280		
	3 year	290		
	4 year	300		
	5 year	310	=(270+280+290+300+310)/5	290

On transition the historical trailing average determined from the five forward government bond rate should be adopted, similar to the worked example above.

A worked example of trailing average advocated by Transpower. Rates are updated as per the trailing average methodology presented below.

3. **Debt Premium and Risk Free Rate transition and ongoing methodology illustrated (all figures in basis points – bps)**

Period	Disclosure year	Corporate - government 5 year bond 3m average Debt Premium	Trailing Average Cost of Debt (TACD) TACD formula	Trailing Average Debt Premium TACD	5 year government bond interest rate RfR	Trailing Average RfR TA RfR formula	Trailing average RfR TA RfR	DP & RfR	ROTD WACC	
3 months	2015	165			270			435		
3 months	2016	200			210			410		
3 months	2017	160			250			410		
3 months	2018	180			250			430		
3 months	2019	190			280			470		
3 months	2020	220	=(200+160+180+190+220)	190	310	=(270+280+290+300+310)/5	290	530		
3 months	2021	180	=(160+180+190+220+180)	186	320	=(280+290+300+310+320)/5	300[11]	500	470	
3 months	2022	165	=(180+190+220+180+165)	187	320	=(290+300+310+320+320)/5	308	485		
3 months	2023	160	etc.	183	350	=(300+310+320+320+350)/5	320	510		
3 months	2024	170	etc.	179	340	=(310+320+320+350+340)/5	328	510		
3 months	2025	165	etc.	168	300	=(320+320+350+340+300)/5	326	465		
3 months	2026	200	etc.	172	260	etc.	314	460	510	
3 months	2027	220	etc.	183	210	etc.	292	430		
3 months	2028	240	etc.	199	170	etc.	256	410		
3 months	2029	230	etc.	211	180	etc.	224	410		
3 months	2030	140	etc.	206	210	etc.	206	350		
3 months	2031	170	=(220+240+230+140+170)	200	280	etc.	210	450	410	
3 months	2032	165	=(240+230+140+170+165)	189	300	=(170+180+210+280+300)/5	228	465		
3 months	2033	200	=(230+140+170+165+200)	181	260	=(180+210+280+300+260)/5	246	460		
3 months	2034	220	=(140+170+165+200+220)	179	210	=(210+280+300+260+210)/5	252	430	430	

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[11] Note that the trailing average is added to incrementally with 1/5th of the new year 5 year government bond interest rate. At the same time the transition rates roll off, first the 1 year, in the following year the transition 2 year rate – replaced by the prevailing determination window 5 year rate,… etc.