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Date *November 25, 2020*

BY EMAIL TO: ferroviaire-rail@otc-cta.gc.ca

Canadian Transportation Agency
15 Eddy St
Gatineau, Québec
J8X 4B3

Re: Agency Consultation on Cost of Capital Rates

We are solicitors for Teck Resources Limited and its affiliates Teck Coal Limited and Teck Metals Limited (collectively, "**Teck**") in connection with the Agency's Consultation on Cost of Capital Rates (the "**Consultation**") announced on September 25, 2020.[1]

In support of our submissions, we have appended letters from the Western Grain Elevator Association, the Canadian Canola Growers Association and the Mining Association of Canada ("**Stakeholders**"), all of whose members have extensive dealings with Canadian National Railway ("**CN**") and Canadian Pacific Railway ("**CP**").

Throughout these submissions, we refer to the *Canada Transportation Act* (the "**Act**") and the following documents and defined terms:

Documents

- **"Discussion Paper"**: the Discussion Paper entitled "Methodology to Determine Net Rail Investment and Capital Structure for the Calculation of Cost of Capital Rates"[2]
- **"Gould Report (2019)"**: the expert report prepared by Dr. Larry Gould, Ph.D., entitled "Cost of Capital Methodology" in response to the Regulated Interswitching Consultation, as appended to our submissions thereto
- **"Gould Report (2020)"**: the expert report prepared by Dr. Larry Gould, Ph.D., entitled "Issues in the Calculation of the Net Railway Investment and Capital Structure" in response to the Consultation, as appended hereto at Schedule "A"

Defined Terms

- **"ARCM"**: Agency Regulatory Costing Model

[1] Available at: https://otc-cta.gc.ca/eng/consultation/consultation-cost-capital-rates
[2] Available at: https://otc-cta.gc.ca/eng/discussion-paper-methodology-determine-net-rail-investment-capital-structure-calculation-cost-capital-rates

- **"ARCM Consultation":** the Agency's "Consultation on the Agency's Regulatory Costing Model"[3]
- **"LRVC"**: long run variable cost
- **"Regulated Interswitching Consultation"**: combined for the purposes of this Consultation to include both the Agency's "Consultation on the CTA Approach to Setting Regulated Interswitching Rates" and the "Regulated Interswitching: Proposed Changes To Rate-Setting And Billing"[4]

INTRODUCTION

1. We are pleased to make these submissions to the Agency on behalf of Teck and the Stakeholders.

2. We refer to our prior submissions in connection with the Agency's work, which is important to many shippers, particularly in its efforts to meet the policy objectives set out in section 5 of the Act. These and prior submissions are underpinned by that policy. We continue to observe that shippers rely on the effectiveness of that policy and look to the Agency to uphold its principles. We appreciate the Agency's unique position, expertise and responsibility in ensuring the Agency's execution of the policy achieves its stated aims. As always, we continue to look to the strength of Agency staff in attending to shipper expectations that the Agency's work will be robust, well-founded and transparent.

3. We have been pleased to participate in past consultations that are related to, or impacted by, the work the Agency carries out in this Consultation. These include relevant methodological determinations, such as Decision No. 425-R-2011 (2011 cost of capital decision), Decision No. 2015-R-91 (variability decision), Determination No. R-2017-198 (determination of the methodology to determine the working capital amounts and capital structure for regulatory purposes), the ARCM Consultation, the Regulated Interswitching Consultation, and others, each as referenced elsewhere.

4. In this Consultation, the Agency inquires about two components of regulated cost of capital rates, namely, Net Rail Investment and Capital Structure.

5. We understand that the Agency may propose changes, based on the input received, to its methodology for calculating cost of capital rates.

6. We are encouraged by the Agency's goal, which it articulates as follows:

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[3] Initiated by the Agency and conducted between January 9, 2017 and February 28, 2017, as described at: https://www.otc-cta.gc.ca/eng/consultation/consultation-agencys-regulatory-costing-model-arcm.
[4] Initiated by the Agency and conducted between June 20, 2019 and August 28, 2020, as described at: https://otc-cta.gc.ca/eng/consultation/consultation-cta-approach-setting-regulated-interswitching-rates and https://otc-cta.gc.ca/eng/consultation/regulated-interswitching-proposed-changes-rate-setting-and-billing.

Our goal is to ensure that the methodology we use to calculate cost of capital is rigorous, transparent, and fair for rail system users, including shippers, and railway companies. The methodology we use should also treat railway companies consistently. In recent years, the CTA has observed differences in reporting of certain cost of capital elements by the railway companies. As a result, the CTA in Decision No. LET-R-29-2020 and Decision No. LET-R-30-2020 adopted an interim methodology on some of these elements to better align the approaches. As part of our consultation process, we are seeking input on various issues that can help to establish a longer-term solution.

7. Teck and the Stakeholders are interested in the outcome of the Consultation for the following reasons:

   a. cost of capital rates, the application of the ARCM to establish LRVC, CN and CP claims for ever greater recovery of revenue in excess of LRVC and even in excess of total cost, use of cost-based rates, etc., directly or indirectly affect the Stakeholders, often in proportion to their degree of captivity,

   b. in connection with the Agency's mandate pertaining to the economic regulation of railway companies, they are reliant on the robustness, correctness and fairness of the Agency's processes and the execution of its mandate; indeed, they rely on the Agency to adequately regulate, at the very least, those parts of CN's and CP's rail systems that operate as natural monopolies or otherwise exhibit attributes of entities that can and do exercise market power, and

   c. the significant exercise of market power by CN and CP is borne by the most captive shippers and has resulted in large wealth transfers from those shippers to CN and CP, as set out in the report of Dr. Gould in the Regulated Interswitching Consultation, such that

      > "In 2018, the CN after-tax return on equity was estimated at 25.2%, 3.1 times the 8.1% level determined by the CTA to be the amount needed for CN to be financially viable. This is consistent with the fact that CN's share price is currently over five times its book value."[5]
      >
      > "In 2018, the CP after-tax return on equity was 29.85%, 3.2 times the 9.47% level determined by the CTA to be the amount needed for CP to be financially viable. CP's share price is currently over six times its book value."[6]

8. The Agency states in the Discussion Paper as follows:

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[5] Gould Report (2019), page 13.
[6] *Ibid.*

The cost of capital determination process consists of four distinct steps:

A. Determination of net rail investment;
B. Determination of capital structure;
C. Determination of capital structure cost rates (which includes the cost rate of debt, deferred taxes and common equity); and
D. Calculation of the cost of capital rate based on A, B and C.

The cost of capital rate (D) is calculated by determining the net value of rail-related investments that a particular railway company has made over time (A), the capital structure of the railway company (i.e., the proportion of each type of funding in the capital structure) (B), and the different cost rates associated with how each particular type of capital was amassed (C).

In 2017, the CTA consulted on the methodology for the working capital allowance and capital structure (B) which resulted in Determination No. R-2017-198 (2017 Determination). In 2019, the CTA held a consultation on its cost of equity model in 2019, and reaffirmed the use of book values over market values in determining the cost rate of debt (C) in the 2017 Determination.

This consultation focuses on the determination of net rail investment (A) and capital structure (B). More specifically, the CTA wishes to examine the following questions:

- Should a negative working capital be allowed in the calculation of net rail investment?
- Should commercial paper be included in the calculation of the working capital component within net rail investment?
- Should the current portion of long-term debt be recorded as a current liability or long-term debt?
- What methodology should the CTA use to apportion general purpose debt between regulated and non-regulated activities to determine the capital structure of railway companies?
- Should certain debt receive alternative treatment from the methodology set by the CTA in the 2017 Determination?

9. The Gould Report (2020) addresses the foregoing questions. We emphasize here a few points, as well as our own observations in connection with his recommendations:

a. The Agency has raised a significant area of concern for the shipping community that relies on the Agency's WACC determinations. Shippers who must ship by rail have few opportunities to negotiate rates and cannot rely on a normally functioning market to assess the extent to which quality-adjusted rates are coupled to cost, as they would be under conditions of effective competition. In those shipper-carrier relationships, negotiations are one-sided, not just because of the traditional kinds of market power enjoyed by a rail carrier, but also because of the information imbalance between them. Whether in negotiations, adjudications, or contractual and regulated index-based rate adjustments, shippers rely on the correctness of the information

CN and CP provide to the Agency, as well as the transparency of their value judgements. It is therefore terribly concerning that either CN or CP would characterize and allocate debt to the Canadian parts of its system on a basis that artificially inflates its cost of capital. As Dr. Gould unequivocally asserts:

> "It is not correct to allocate debt to the regulated balance sheet based on the debt-to-equity ratio of the consolidated balance sheet. The Agency should use a separated balance sheet reflecting the capital structure that the railway would have as an independent company."[7]

> "If the railway can prove that the debt issue was raised for specific non-rail purposes or to finance United States railway operations, it should then be removed from the regulated balance sheet. If the railway can prove that the debt issue was raised for general purposes by identifying its use, it should then be allocated to the regulated balance sheet using the RTM based approach."[8]

b. In terms of data and information disclosure, Dr. Gould reaches the same conclusions we have previously reached and about which we have made previous submissions. These conclusions are very concerning to shippers and must be very concerning to the Agency in its deliberative, regulatory role. We can find no better words than his:

> "It would seem that current data reporting requirements were not sufficient to inform the Agency without a specific inquiry: whether CP used commercial paper; whether commercial paper was included in the calculation of working capital in CP's cost of capital submissions; that CP was not including debt issued for share buybacks in the calculation of its capital structure; and that there was no information available on the interest rate and interest expense of CN's commercial paper. The Agency would benefit from stronger data reporting on the terms, purpose and classification of each debt issue."[9]

c. If CN and CP continue to attempt to characterize as long term debt what are obviously current liabilities, such as commercial paper, lines of credit and A/R securitization programs, they should be required to provide documentation and reasonable, transparent rationales to support their positions. If the Agency accepts this deviation, it would follow that their respective WACC would go down. Conversely, current portions of long term debt, as Dr. Gould points out, should not be recorded as current liabilities.

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[7] Gould Report (2020), p.22
[8] *Ibid*., p.24
[9] *Ibid*., p.25

10. We look forward to engaging further with other stakeholders in connection with this Consultation and take this opportunity to express a few points of process.

    a. First, we have stated several times a need for increased transparency of the Agency's processes, including both in consultations and in the makeup of the ARCM. We commend the Agency for adopting here a process that allows all stakeholders to both view and respond to CN's CP's submissions. Some prior consultations have not allowed shipper stakeholders that opportunity, which has resulted in an imbalance between those with and those without the basic information, data and figures to determine, often without any sense of what is proposed, how to respond. Any process that creates an imbalance of opportunity to assess and review inputs, or that discloses some information to some respondents and not to others necessarily creates an apprehension of unfairness.

    b. Second, there is a significant shortcoming in our ability, and in the ability of experts we retain, to respond and provide to the Agency what might otherwise be much more valuable feedback. As in past consultations, we and our experts are at a severe disadvantage at the outset. We do not know what it is that CN or CP or both are reporting to the Agency, how they are treating elements of net rail investment, what makes up each of their capital structure nor the components of their respective capital structure cost rates. Further, we are often left to anticipate the issues that the Agency may be considering. Elucidation of those issues would improve Agency consultations considerably. Dr. Gould makes recommendations to that effect as well, concluding as follows:

> "Regulatory financial statements are not provided. There may be some capital structure information that can be withheld because it is commercially sensitive. However, it seems unlikely that argument could apply to all capital structure information, even the weights in the WACC calculation. Note that the capital structure weights for the different sources of capital are not provided for either railway.
>
> Providing more of the railways' capital structure information would facilitate better responses to questions in the Consultations."[10]

    c. Third, repeating our submissions in prior consultations, and in support of Dr. Gould's recommendation above, we underscore the importance of transparency of the methodology, processes and inputs the Agency uses to make its determinations, including unit costs and relevant service units from the ARCM. While we accept that the Agency is constrained by statute, we urge the Agency not to constrain itself beyond those bounds and instead to

[10] *Ibid.*, p.31

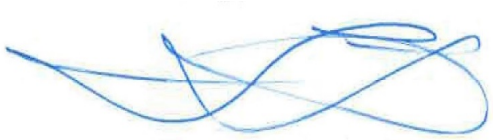
examine regularly everything it can disclose, as a means of ensuring fairness of process and outcomes.

Conclusion

11. We look forward to receiving the submissions of other stakeholders, particularly CN and CP, as we assess their reasoning for various positions they have taken in regard to the issues raised in this Consultation. It is our sincere hope that we will be in better position to respond to their claims in the next phase. Of course, we also look forward to the Agency's continued vigilance in ensuring staff receive the information and data necessary to make accurate recommendations to Members.

Please do not hesitate to contact us if we can be of further assistance in the Consultation.

Yours truly,



François Tougas

cc: Teck Resources Limited
Western Grain Elevator Association
Canadian Canola Growers Association
Mining Association of Canada

// Attachments: Gould Report (2020) and Stakeholder Letters

SCHEDULE "A"

Gould Report (2020)

BEFORE THE CANADIAN TRANSPORTATION AGENCY

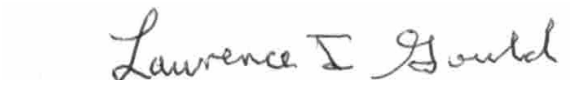
IN THE MATTER OF THE CONSULTATION REGARDING THE METHODOLOGY TO DETERMINE THE NET RAILWAY INVESTMENT AND CAPITAL STRUCTURE FOR THE CALCULATION OF COST OF CAPITAL RATES

ISSUES IN THE CALCULATION OF NET RAILWAY INVESTMENT AND CAPITAL STRUCTURE

REPORT

Prepared by:

LAWRENCE I. GOULD



November 25, 2020

I. INTRODUCTION

The Canadian Transportation Agency (Agency) has initiated a consultative review of its methodology for determining the net railway investment and capital structure for the calculation of cost of capital rates (the "Consultation"). I was asked by McMillan LLP to provide my independent judgment and opinion to the Agency on the issues pertaining to the Agency's net railway investment and capital structure methodology in the Consultation.

I am Senior Scholar at the Asper Business School, University of Manitoba. Previously I have been Head, Department of Accounting and Finance at the University of Manitoba and Chairman, Finance and Business Economics at McMaster University.

I received the Bachelor of Science Degree in Economics from the Wharton School of Finance and Commerce, University of Pennsylvania in 1966. I completed the Master of Business Administration Degree in Finance from New York University in 1968 and the Doctor of Philosophy Degree in Finance from the University of Toronto in 1975.

During the last 40 years I have been employed as a consultant in a number of cases that posed a wide range of problems in applying financial theory to the determination of the cost of capital and valuation. I have testified on financial matters before the Canadian Transportation Agency, the Canadian Radio-Television and Telecommunications Commission, the Canadian Human Rights Tribunal, the Public Utilities Board of Manitoba, the New Brunswick Board of Commissioners of Public Utilities, the Newfoundland Board of Commissioners of Public Utilities, the Nova Scotia Utility and Review Board, the New Mexico Public Service Commission and the Federal Communications Commission.

I have also been engaged in academic research to extend the theory of the cost of capital. Among the subjects of this research have been the effects of income taxation on the cost of capital,

the impact of growth on the cost of capital, the impact of inflation on the cost of capital, estimating the cost of capital for a non-traded division of a company and the use of the capital asset pricing model in estimating the cost of capital. I have published articles on the cost of capital and related problems in finance in the Journal of Finance, Financial Management, the Journal of Portfolio Management, the Journal of Accounting, Auditing and Finance, the Canadian Tax Journal and elsewhere.

II. STATEMENT OF THE PROBLEM

The Canada Transportation Act sets out national transportation policy for Canada at section 5. Regulation is used to achieve economic outcomes when they cannot be achieved satisfactorily by competition and market forces. The Agency makes annual cost of capital rate determinations for federally regulated railway companies in specific statutory and regulatory applications:

- As a component in the volume-related composite price index calculation that establishes the maximum revenue entitlement for the movement of Western grain by rail.
- For use in the development of interswitching costs and rates.
- For other regulatory purposes requiring cost determinations, such as technical costing assistance in Final Offer Arbitration proceedings between a shipper and a railway.

The Agency's staff produced a discussion paper that outlines certain issues about the Agency's net rail investment and capital structure methodology that should be considered.[11] The purpose of this report is to provide my opinion on the Agency's capital structure methodology and to comment on the issues raised in the Discussion Paper.

[11] Canadian Transportation Agency, Discussion Paper on the Methodology to Determine Net Railway Investment and Capital Structure for the Calculation of Cost of Capital Rates, September 25, 2020 ("Discussion Paper").

III. STATEMENT OF THE PROBLEM

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- For other regulatory purposes requiring cost determinations, such as technical costing assistance in Final Offer Arbitration proceedings between a shipper and a railway.

The Agency's staff produced a discussion paper that outlines certain issues about the Agency's net rail investment and capital structure methodology that should be considered.[12] The purpose of this report is to provide my opinion on the Agency's capital structure methodology and to comment on the issues raised in the Discussion Paper.

[12] Canadian Transportation Agency, Discussion Paper on the Methodology to Determine Net Railway Investment and Capital Structure for the Calculation of Cost of Capital Rates, September 25, 2020 ("Discussion Paper").

IV. CAPITAL STRUCTURE

The classic capital structure problem for a regulated company is the decision concerning the relative amounts of debt, preferred stock, and common equity that should be included in the company's capital structure. The implicit assumption in such a determination is that these are the only sources of funds. However, given the increased importance of current liabilities, deferred income taxes, and the investment tax credit, it is artificial to omit these other sources of capital from consideration of the problem. This section categorizes the various sources of capital and describes the alternative procedures that could be used to determine the earnings requirement for both an entire firm and a division of a firm when the presence of these other sources of funds is recognized.

It is obvious that a regulated company must acquire land, plant, and equipment in order to provide services to its customers. In addition, the operations of its business also require current assets such as cash, accounts receivable, and materials and supplies. The rate base is essentially the property that is deemed used and useful in providing service. Any capital in the rate base must be provided by someone, and customers should be charged the appropriate cost of each type of capital. It is useful to categorize this capital into the following three sources: capital which arises from the ordinary business operations of the firm; capital which arises due to tax policies; and capital which is provided by investors.

An example of capital which arises through the operations of the firm is trade credit. If a company makes average purchases of $100,000 a day on terms of net 30, on average it will owe 30 x $100,000 = $3 million to its suppliers. If its sales and, consequently, its purchases double, accounts payable will also double to $6 million, and the company obtains an additional $3 million in spontaneously generated capital. The financing cost is included in the price the company pays its suppliers, but given the price, this capital has a zero cost and should be used as fully as possible.

Capital also arises through actions taken by the company and its regulatory agency with respect to government tax policy. The accumulated deferred income taxes and the unamortized investment tax credit represent sources of capital as long as they are outstanding. To the extent capital is obtained from tax sources, it is obtained at a zero cost to the company.

The amount of operating and tax-source capital is determined by the particular circumstances of the firm, and a company with prudent management should use these sources up to the constraints imposed by suppliers and the regulatory agency. The balance of the capital required for the firm must be provided by investors, and this may take various forms: common equity, preferred stock, debt, or some combination such as convertible preferred stock.

This section examines the effects of alternative treatments of these sources of capital in determining a company's earnings requirement. First, consider an example in Table 1 for Hypothetical Company, which is regulated as a single entity. If all of the assets are used and useful they may properly be included in the rate base and we must allow the firm to earn the required return for each of its sources of capital. In this example we assume that cost of equity capital is 14%, the embedded cost of preferred stock is 8%, the embedded interest rate on debt is 7%, and, as indicated previously, current liabilities and accumulated deferred taxes are zero-cost sources of funds. Multiplying each source of capital by its fraction of the total capital, and summing, results in a WACC of 8.53%. The earnings requirement of $9.90 is determined by multiplying the $116 rate base by the 8.53% WACC. The interpretation of this is straightforward. If the firm earns $9.90 it will be able to pay the bondholders $3.50 ($50 x .07), the preferred shareholders $.80 ($10 x .08), and still have $5.60 for the common shareholders. A return of $5.60 on a common equity of $40 provides the common shareholders with their required return of 14%. The purpose of the WACC calculation is to arrive at allowable earnings that will provide investors with their required returns.

Table 2 presents an alternative treatment, which will be referred to as the net method, where current liabilities are subtracted from current assets to arrive at working capital, and deferred taxes are deducted from the rate base. We again multiply the cost of each source of capital by its fraction of total capital and sum to arrive at a WACC of 9.90%. Multiplying this WACC by the $100 net rate base again results in an earnings requirement of $9.90. Since we arrived at an identical earnings requirement, it obviously must be sufficient to pay each of the sources of capital its required return.

In the simple case an important principle is illustrated: the WACC is not independent from the definition of the rate base. We may either net current liabilities and accumulated deferred taxes from the rate base and calculate the WACC using investor-supplied capital (net method) or include all assets in the rate base and calculate the WACC with all sources of capital, including current liabilities and accumulated deferred taxes (gross method). Of course, it would be incorrect to net sources of capital from the rate base and also include the same sources of capital in the calculation of the WACC.

Table 3 provides a slightly more complicated balance sheet that will enable us to calculate the WACC for separate divisions of the firm. This Table considers the same data that were used in Table 1, but assumes we can allocate the net plant and current assets of Hypothetical Company between two divisions (Division A and Division B) on the basis of specific use. Similarly, some sources of capital may be allocated to specific divisions. For example, certain current liabilities, such as accounts payable and advance billings, may result directly from the operations of a particular division. In the same manner, we may also allocate capital from tax sources to the particular division's operations from which the tax credits were generated.

Other sources of capital, however, may not be specific to any particular division. After considering any business risk differences between divisions which would affect their debt capacity, we need a basis for allocating investor-supplied capital represented by common equity, preferred stock and

debt to any particular division. In addition, certain current liabilities, such as dividends payable and interest accrued, represent liabilities which are general in nature and cannot be specifically attributed to either division.

A comparison of Table 1 with Table 3 shows their only difference to be the allocation of $104 net plant and $12 current assets between Division A and Division B on the basis of specific use. The sources of funds have also been allocated when they are specific to a division, as is the case for the $10 accumulated deferred income taxes. The $6 current liabilities consist of $3 specific to Division A, $1 specific to Division B, and $2 which is general. The $2 general current liabilities and the $100 investor-supplied capital cannot be attributed to a particular division.

Table 3 shows the WACC for the entire firm is 8.53% using the gross method and a rate base of $116. This results in the same $9.90 earnings requirement as Table 1. Table 4 provides the calculation of the WACC using the net method. However, since the general current liabilities are not specific to divisional assets, they have not been netted from the asset base, and remain with the investor-supplied capital to form the capital structure. Using this method, the WACC is 9.71%. When this WACC is applied to the net rate base of $102, it results in the same earnings requirement that we obtained in Tables 1, 2, and 3.

At this point, however, we are interested in calculating the earnings requirement for a particular division. Table 5 shows the calculation for each of the two divisions contained in Table 4. The rate base has been determined for each division by taking the net plant and working capital minus the accumulated deferred taxes specific to that division from Table 4. The capital structure of each division using the net method has been determined in this example by prorating the capital structure of Table 4 according to the relative size of divisional assets to firm assets.

The percentage weights and costs of each of the sources of capital must be the same for each of the divisions in Table 5 as we obtained for the entire company in Table 4. Therefore, using the net method we obtain the same WACC for each division, and the earnings requirement between divisions varies with the amount of assets allocated to the rate base. In Table 5 we obtain an earnings requirement of $5.92 for Division A and $3.98 for Division B, which equals the $9.90 earnings requirement for the entire company which we obtained in Table 4.

Table 6 provides the divisional calculations from Table 3 using the gross method. It can be seen that this method results in an earnings requirement of $5.92 for Division A and $3.98 for Division B, which is identical to the earnings requirements obtained using the net method. However, the gross method will usually result in a different WACC for each division and for the entire company, since the divisions differ with respect to operating and tax-source capital. This illustrates another important principle: if a division is regulated using the net method, the WACC for the entire firm may be used, but if regulation is through the gross method, using the WACC for the entire firm will not usually result in the correct earnings requirement.

We may conclude, therefore, that in regulating a particular division of a firm it is both correct and desirable to deduct specific sources of operating or tax capital from the rate base, and then use the WACC derived from investor-supplied capital and nonspecific sources of capital. Furthermore, if a source of capital is deducted from the rate base, it must not be included in the calculation of the WACC and, conversely, if a source of capital is not deducted from the rate base, it must be included in the WACC calculation.

V. PROBLEM AREAS SPECIFIC TO THE DISCUSSION PAPER

There are certain problem areas that require a fuller explanation in order to use the general principles provided above. The Agency has requested comments on a number of issues in the calculation of net rail investment and capital structure that have become apparent with the different reporting practices of the railway companies:[13]

- Should a negative working capital be allowed in the calculation of net rail investment?
- Should commercial paper be included in the calculation of working capital?
- Should the current portion of long-term debt be identified as a current liability or as long-term debt?
- How to apportion general purpose long-term debt of a railway company between its Canadian rail entities and non-regulated entities?
- What should be the treatment of debt not issued by a railway company?

[13] Discussion Paper, pages 5-8.

Issue 1: Should a negative working capital be allowed in the calculation of net rail investment?

The current methodology for determining the working capital allowance was decided by the Agency in 2017.[14] The Agency acknowledged that a properly conceived and executed lead-lag study would be considered to result in the most accurate estimate of the amount of the working capital requirements. However, there were concerns about the potential costs to the railway companies of conducting extensive and repeated lead-lag studies, and the Agency wanted to adopt a methodology that would allow working capital allowances to reflect current operations without imposing an undue burden on the railway companies. As a result, the Agency adopted the staff proposal of a modification to the classical accounting definition of working capital. In this modification, the annual working capital allowance would be estimated as an average of 12 monthly estimates of the requirements, where each monthly estimate is determined as the average of the opening and closing balances of current assets for the month, less the average of the opening and closing balances of current liabilities for the month. However, in recent years when current liabilities exceeded current assets, the methodology for calculating the working capital allowance has produced a negative working capital.

Q.1 Should the cost of capital reflect the economic reality of the railway company at the time it is calculated, regardless of whether it is positive or negative? Please provide a rationale for your response.

In Section III it was shown that the WACC could not be determined independently from the determination of the rate base. If operating sources of capital are subtracted from the rate base, the net method for calculating the WACC is appropriate. Conversely, if operating sources of capital are not

[14] Canadian Transportation Agency, Determination of the Methodology to be Used by Federally-Regulated Railway Companies to Determine the Working Capital Amounts and Capital Structure for Regulatory Purposes, December 5, 2017.

deducted from the rate base, they must be included in the calculation of the WACC at the appropriate cost. This can be seen by comparing Table 1 and Table 2. In Table 1, $12 of current assets are partly financed by $6 of current liabilities. In Table 2 using the net method, the $6 of current liabilities are subtracted from the $12 of current assets resulting in $6 working capital. The $6 working capital is financed by the investor supplied capital of common equity, preferred stock and debt. The interpretation is similar using the net method if current liabilities exceed current assets resulting in negative working capital. In that case, the rate base is reduced and the WACC increases, leaving the earnings requirement unchanged.

However, the Discussion Paper noted:

> "A consistent negative working capital will affect a company's long-term investment effectiveness and its financial strength in covering short-term liabilities. For some industries, having a negative working capital for an extended period of time indicates financial weakness, as they are unable to pay their bills, and have to rely on borrowing or issue stocks to finance their working capital."[15]

Is this a problem for the Agency's methodology to determine the amount of working capital in net rail investment? Companies vary in their working capital policies and in their short-term financing policies. Financial analysts use various ratios and techniques to measure the effect of these policies on the liquidity of the company. These analyses may be important for managerial or investment decisions, but they are not relevant for the Agency's determination of the WACC or the calculation of net railway investment.

Issue 2: Should commercial paper be included in the calculation of working capital?

[15] Discussion Paper, page 5.

Commercial paper is a type of unsecured promissory note issued by large, strong firms and sold primarily to insurance companies, pension funds and money market funds. It is typically issued to finance short-term working capital needs. Maturities on most commercial paper range from a few weeks to months with an average maturity of 30 days. As a result, under the Agency's current methodology it is included as a current liability when determining the working capital requirement of net rail investment.

But what if an issue of matured commercial paper is continually replaced by new issues of commercial paper for the remaining amount of the obligation? Should it then be considered long-term debt?

Q.2 Although commercial paper, by definition, is a short-term financial instrument, should commercial paper that is routinely rolled over be treated as a current liability or as long-term debt? Please provide a rationale for your response.

Long-term debt is issued with a contract under which the borrower agrees to make payments of interest and principal on specific dates to the holders of the debt extending beyond one year. Commercial paper has no long-term contract. It may be a company's intent to issue commercial paper as part of a continuous and longer rolling program as a short-term financing policy, but there is no certainty that they will continue the policy or be able implement the policy.

When maturing commercial paper is rolled over, investors are paid off with proceeds from a new issue, similar to the way that some individuals pay off one credit card with an advance from another. Rollovers carry the danger that an unexpected circumstance might interfere with attempts to replace outstanding commercial paper with new commercial paper, just as consumers rolling over credit card debt would be in trouble if a card issuer refused a promised cash advance. A limitation of

the commercial paper market is that the size of the funds available is limited to the excess liquidity that corporations have at any particular time.

During times of financial crisis companies have been unable to roll over their maturing commercial paper. For example, when Penn Central declared bankruptcy in 1970 the company defaulted on all of its commercial paper obligations. Issuers who had no relation to Penn Central saw investors lose confidence in commercial paper altogether. Similarly, as investors lost confidence in money market mutual funds in 2008, they withdrew their capital. Fund managers liquidated their short-term investments causing the availability of commercial paper to contract and short-term yields to increase dramatically. Many companies were unable to continue their rollover programs.

Under the Agency's current methodology, commercial paper should continue to be included as a current liability when determining the working capital requirement of net rail investment.

Q.3 If the CTA finds it appropriate to treat rolled over commercial paper differently, how should commercial paper that is rolled over and commercial paper that is not be identified in the railway company's annual submissions to the CTA?

As shown in Section III, if a source of capital is deducted from the rate base, it must not be included in the calculation of the WACC and, conversely, if a source of capital is not deducted from the rate base, it must be included in the WACC calculation. Therefore, if the Agency finds it appropriate to treat rolled over commercial paper as long-term debt, there will be two different treatments for commercial paper. The rolled over commercial paper would be removed from current liabilities, which would increase the working capital allowance and net rail investment. Simultaneously, the rolled over commercial paper would be included as long-term debt, which

would lower the WACC. The remainder of commercial paper would remain as a current liability and not be included in the calculation of the WACC.

As discussed in Q.2, without a long-term contract it will be difficult to identify which issues of commercial paper are equivalent to long-term debt. The railway companies should be required to provide their rollover plan identifying commercial paper issues that they consider long-term debt and provide documentation for the rollovers as they occur.

Q.4 How should commercial paper which is raised for general corporate purposes be allocated to regulated activities? Please provide a rationale for your response.

This question is similar to how to apportion general purpose long-term debt of a railway company between its Canadian rail entities and non-regulated entities. It is discussed in Issue 4 below.

Q.**5 Are there other short-term financing instruments (for example, an unsecured revolving credit facility or an accounts receivable securitization program) that should be treated as long-term debt rather than as a current liability? Please provide a rationale for your response.**

First, consider a typical line of credit. This is a one-year operating loan designed to finance working capital. The contract will state a maximum amount that can be borrowed, but the company can pay as little or as much off anytime during the year. The interest will be floating based on prime, but interest is only paid when funds are borrowed. This is appropriately considered a current liability.

Now consider a revolving line of credit. This is the same as a typical line of credit except that instead of renegotiating the terms of the line of credit on an annual basis there is a commitment from the bank for a longer period of time, for example, three years. Does this extension of the bank's commitment change the classification of the loan to long-term debt? Although the commitment exceeds a one-year time period, based on the characteristics of the loan and its use as short-term financing, a more reasonable assessment is that it should be considered a current liability in the methodology that the Agency uses to determine the working capital component of net rail investment.

A similar problem occurs with the classification of an accounts receivable securitization program. Although there are many variations, generally these programs involve agreements for a company to sell ownership interests in a revolving pool of accounts receivable to a trust with the company retaining the responsibility for collecting the receivables sold. In effect, the program provides the company with short-term financing secured by current assets. Although the agreement may be in excess of one year, it may sometimes be terminated before its scheduled maturity. Based on the characteristics of the program it should be considered a current liability in determining the working capital component of net rail investment.

Alternatively, if the Agency finds it appropriate to treat an unsecured revolving credit facility or an accounts receivable securitization program as long-term debt, it would be removed from current liabilities, which would increase the working capital allowance and net rail investment. However, it must then be included as long-term debt, which would lower the WACC.

Issue 3: Should the current portion of long-term debt be identified as a current liability or as long-term debt?

Accountants classify debts as current liabilities or as long-term debt. As an accounting convention, current liabilities are those a company pays within the current year and long-term debt includes bonds or other financial obligations that have a repayment schedule lasting over a year. Eventually, as the payments on long-term debts come due within the next one-year time frame, these debts become current liabilities, and the company records them as the current portion of long-term debt.

Q.6 Should the current portion of long-term debt be treated as a current liability as per US GAAP or should it be treated as long-term debt? Please provide a rationale for your response.

Management and financial analysts are interested in separating out the current portion of long-term debt to determine if a company has sufficient liquidity to pay off its short-term obligations. Financial analysis needs to make this distinction to measure whether the company is actually able to make its payments as they come due. However, a regulatory agency is concerned with a different problem--measuring a company's capital structure for the calculation of cost of capital rates.

Management establishes a target capital structure that is considered optimal to finance long-term assets. Assume that part of establishing this capital structure involves issuing a 10-year bond. In measuring the capital structure, that bond should be considered part of the company's long-term debt for 10 years, despite the fact that accounting conventions in place for other reasons will reclassify the bond in the tenth year as a current liability. In measuring a company's capital structure for the calculation of cost of capital rates, the Agency should consider the current portion of long-term debt as part of long-term debt.

Issue 4: How to apportion general purpose long-term debt of a railway company between its Canadian rail entities and non-regulated entities?

CN's parent company holds long-term debt that is used to finance both Canadian and United States operations. A portion of that debt is attributed to CN's regulatory balance sheet, which is determined in accordance with the Uniform Classification of Accounts and Related Railway Records (UCA) and is the basis for the Agency's cost of capital determinations.

The question of the appropriate amount of debt to attribute to CN's regulatory balance sheet was considered in the 1997 Cost of Capital Methodology Review where the Agency determined:

> "With respect to CN, in years prior to 1992, CN's portion of the long-term debt was determined by allocating 100% of the corporate long-term debt to rail excluding the portion that was clearly identified as non-rail. In 1995 CN's rail activities represented over 90% of the corporate activities. The Agency finds that for the cost of capital purposes, using the corporate long-term debt reduced by the identifiable non-rail long-term debt is appropriate in assessing CN's long-term debt for cost of capital purposes."[16]

Debt was considered to be in CN's regulatory balance sheet unless CN could prove that the debt was raised for non-rail purposes or for the United States operations. The result was that each debt issue was assigned totally to Canadian rail operations, partly to Canadian rail operations or excluded from Canadian rail operations.

CN argued that this procedure resulted in an overstatement of the debt in the regulatory balance sheet and proposed to replace the current methodology of allocating specific debt issues with a methodology that allocates debt to the regulatory balance sheet based on the debt to equity ratio of the

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[16] Canadian Transportation Agency, Decision 125-R-1997, March 6, 1997, page 7.

consolidated company. The Agency did not accept this proposal and instead adopted an interim methodology to allocate general purpose debt based on revenue ton miles (RTM), the movement of one ton of revenue traffic over one mile, until further consultation had been completed.[17]

Q.7 To the degree that general corporate activities affect the Canadian rail entity, how should the CTA allocate a portion of those activities to the Canadian rail entity?

The regulatory balance sheets and income statements of the railways are not publicly available and they have not been provided for this consultation. However, some observations can be made based on CN's proposal and the interim methodology adopted by the Agency to allocate general purpose debt based on RTMs.

It is not correct to allocate debt to the regulated balance sheet based on the debt-to-equity ratio of the consolidated balance sheet. The Agency should use a separated balance sheet reflecting the capital structure that the railway would have as an independent company.

The Agency relies on the UCA as the framework for regulatory accounting in cost of capital determinations. Using the railways consolidated statements to allocate debt requires resolving differences in accounting rules between United States Generally Accepted Accounting Principles (GAAP) and the UCA, and reconciling differences between the parent company's balance sheet and the regulatory balance sheet.

[17] Canadian Transportation Agency, Decision LET-R-41-2019, April 30, 2019.

The interim methodology for allocating long-term debt excludes each issue of debt that can be linked directly to United States railway operations from the regulatory balance sheet. All general purpose debt is then allocated to the regulatory balance sheet based on the proportions of RTMs in Canada in the year in which the debt was issued.

The RTM based approach is based on a reasonable assumption that there is a relationship between revenues earned and the investment in assets. Compared with the approach based on allocations of long-term debt using the consolidated financial statements, it has the advantage of avoiding the problems of reconciling the accounts from the different accounting systems. The Agency should continue to use a separate balance sheet to allocate specific issues of long-term debt, excluding each issue of debt that can be directly linked to United States railway operations from the regulatory balance sheet. All general purpose debt should continue to be allocated to the regulatory balance sheet based on the proportions of RTMs in Canada in the year in which the debt was issued. The RTM-based approach should also be used for allocating commercial paper that is raised for general corporate purposes to regulated activities.

Q.8 Alternatively, should the CTA disallow debt whose use cannot be identified? That is, should railway companies be required to identify what general purpose debt is incurred for, in order for such debt to be included or excluded in the calculation of cost of capital?

The consequences of the capital structure decision for a regulated company differ from those for an unregulated company so as to make it incumbent on a regulatory agency to make a correct and balanced decision on the matter and not simply accept the company's capital structure decision. For an unregulated company, revenues and earnings before interest and taxes are determined in the marketplace regardless of the company's capital structure decision. Hence, a rise in an unregulated

company's debt ratio raises the company's risk and profitability, and the company makes a capital structure decision that balances the desirable increase in the expected rate of return against the undesirable increase in the uncertainty or risk of its actual rate of return. Also, beyond some level, a rise in the debt ratio increases the probability of insolvency. The management and the shareholders both enjoy the benefits and suffer the possible disadvantages of a high debt ratio.

However, for a regulated company increasing the debt ratio is a heads-you-win-tails-I-lose proposition. Many customers may enjoy the benefits in reduced revenue requirements of a high debt ratio, while the management and shareholders suffer the increased risk. The consequence is that the management of a regulated company will want the lowest possible debt ratio that it can persuade the regulatory agency to accept, and a regulator that simply accepts the debt ratio advocated by a company subject to its regulation is derelict in its responsibilities to customers.

Therefore, each debt issue should be considered initially to be on the railway's regulated balance sheet. If the railway can prove that the debt issue was raised for specific non-rail purposes or to finance United States railway operations, it should then be removed from the regulated balance sheet. If the railway can prove that the debt issue was raised for general purposes by identifying its use, it should then be allocated to the regulated balance sheet using the RTM based approach.

Q.9 Should the CTA enforce stronger data reporting (for example, tracking or projecting what proportion of general purpose debt is used in Canadian rail operations)?

A description of the current data reporting requirements was not included in the Discussion Paper. However, information provided in recent decisions raise concerns about whether the Agency is receiving adequate information. For example:

> "Given that CN raised this issue, on March 2, 2020, Agency staff sought clarifications from the Canadian Pacific Railway Company (CP) on:
>
> - whether CP makes use of commercial paper; and
> - if it does, whether CP includes commercial paper in the calculation of its working capital in its cost of capital submission.
>
> On March 6, 2020, CP responded that it did not include any commercial paper in its calculation of working capital, but stated that it is used to support a cash shortage related to its share buy-backs.
>
> With respect to share buy-backs, the Agency has already determined, in Decision No. LET-R-49-2009, that debt incurred for the purpose of buying back shares in a company whose primary, if not exclusive, business line is the railway business is to be appropriately classified as identifiable rail debt. Consistent with that, the Agency has issued Decision No. LET-R-29-2020 in respect of CP, that debt issued for share buybacks is rail-related and is to be included in the calculation of CP's capital structure.
>
> With respect to whether commercial paper should be treated as current liabilities or as long-term debt, the Agency notes that CN did not provide sufficient evidence to allow the Agency to exclude commercial paper from current liabilities. The Agency notes that CN also did not include information on its commercial paper such as the interest rate and interest expense, which would be necessary if it were to be moved to long-term debt."[18]

It would seem that current data reporting requirements were not sufficient to inform the Agency without a specific inquiry: whether CP used commercial paper; whether commercial paper was included in the calculation of working capital in CP's cost of capital submissions; that CP was not including debt issued for share buybacks in the calculation of its capital structure; and that there was no information available on the interest rate and interest expense of CN's commercial paper. The

[18] Canadian Transportation Agency, 2020/2021 Crop Year Cost of Capital Rate for the Canadian National Railway Company for the transportation of Western Grain, LET-R-30-2200, pages 2-3.

Agency would benefit from stronger data reporting on the terms, purpose and classification of each debt issue.

Issue 5: Treatment of debt not issued by a railway company

The appropriate specification of long-term debt in the capital structure was considered by the Agency in 2011. The question was whether to continue the practice of determining the cost of long-term debt using the embedded cost of long-term debt in the railways' books or to use a market-based approach for assessing debt costs through the use of bond yields. The Agency examined three models to measure the return on bond issues: using the coupon rate of the bond, calculating the current yield on the bond, and calculating the yield to maturity on the bond. The Agency concluded:

> "To the extent that the method for measuring the yield on long-term debt is attempting to reflect the actual financing cost of existing debt, the Agency finds that the coupon rate method is the most reasonable, reliable and pragmatic of the three models examined.
>
> The Agency finds that projecting future debt and future debt costs and the new issues arising from identified related problems is not a clearly superior approach to the one currently in place.
>
> The Agency determines that it will also calculate the cost of debt rate based on the financing rates recorded in the financial reports of each company, and account for only existing debt and debt costs."[19]

The specification of long-term debt in the capital structure was considered again in 2017:

> "The Agency finds that the appropriate specification of long-term debt in the capital structure, to conform to the long-standing definitions of assets and liabilities, and to conform to the

[19] Canadian Transportation Agency, Decision 425-R-2011, December 9, 2011.

existing Agency order regarding determination of the cost of debt rate, is the face value of the debt."[20]

The question posed in this consultation is whether abnormal events create a situation where market value of debt should be used instead of the face value of the debt to determine the company's capital structure.

Q.10 Are there examples of an abnormal situation (such as acquisitions of another railway company and its debt) where the market value of debt should be used, rather than the face value, in the determination of the railway company's capital structure?

The acquisition of another railway is an abnormal situation. Let us assume the market value of the debt securities of the acquired company is lower than its face value. The question is whether the market value of these debt securities should be used instead of the face value in the regulated balance sheet to determine the capital structure.

In order to answer this question, it is useful to examine the financial and accounting treatment of bonds. Although bonds usually pay interest semi-annually, the financial and accounting principles will be illustrated by using a 3-year annual coupon bond in order to simplify the examples.

First, consider the case where the bond is issued with a coupon equal to the required market yield. For example, a 3-year bond with a face value of $1,000 and a coupon rate of 10% will pay annual interest of $100 and repay the $1,000 principal at the end of year 3. Investors discount the cash flows by the 10% required market yield to determine the price that they will pay for the bond. This is

[20] Canadian Transportation Agency, Decision R-2017-198, December 5, 2017.

illustrated in Table 7. The market price is the $1,000 present value of the cash flows, and that market value is equal to the face value of the bond. The accounting treatment is:

At issuance:

Cash	1,000	
Bonds Payable (Face Value)		1,000

Each year the interest expense will be:

Interest Expense	100	
Cash		100

However, for a number of reasons bonds may be issued where the coupon rate is not equal to the required market yield. An example where the 8% coupon rate is less than the 10% market yield is provided in Table 8, page 1. Investors will pay only $950.26 for the bond, the present value of the cash flows. The discount of $49.74 provides compensation for a coupon interest payment below the prevailing market interest rate.

The case where a 12% coupon rate is greater than the 10% market yield is shown in Table 8, page 2. In this case investors would be willing to pay $1,049.74 for the bond because the coupon interest paid exceeds the required market yield. The premium of $49.74 compensates the issuer of the bond for a coupon interest payment above the prevailing market interest rate.

Let us first consider the 8% coupon bond sold at a price of $950.26, a discount of $49.74 from the face value. The accounting treatment is:

At issuance:

Cash	950.26	
Discount on Bonds Payable	49.74	
Bonds Payable (Face Value)		1,000

The discount is reduced as it is amortized over the life of the bond and recorded interest is increased over cash interest by the reduction in unamortized bond discount. An example of this is provided in Table 9 where the discount is amortized using the straight line method at $16.58 annually. The effect is to increase the annual interest expense from $80 to $96.58. Total interest recorded over the life of the bond is $289.74, the sum of $240 cash interest and the bond discount of $49.74.

A preferred accounting treatment for amortizing the bond discount is the effective interest method. As shown in Table 10, the effective interest method gives the same $289.74 total interest over the life of the bond, but the recorded interest payments start lower and increase over time relative to the straight line method. The accounting treatment for interest in the first year using the effective interest method is:

Interest Expense	95.03	
Discount on Bonds Payable		15.03
Cash		80.00

Although the straight line method and the effective interest method differ in the amount of the bond discount amortized in each year, they are similar in using the amortization of the discount to increase reported interest over the cash interest payments.

Next, consider the 12% coupon bond in Table 8, page 2. Investors would be willing to pay $1,049.74 for the bond, a $49.74 premium above the $1,000 face value. The accounting treatment is At issuance:

Cash	1,049.74	
Premium on Bonds Payable		49.74
Bonds Payable (face value)		1,000.00

The accounting treatment for interest using the effective interest method in the first year is:

Interest Expense	104.97	
Premium on Bonds Payable	15.03	
Cash		120.00

The premium is reduced as it is amortized over the life of the bond as shown in Table 10, page 2. The reduction of the unamortized bond premium in each year reduces cash interest to arrive at the annual reported interest.

In the examples of a company issuing bonds, market value can differ from face value. The Agency's previous decisions have determined that the appropriate specification for long-term debt in the capital structure is its face value. When debt is obtained through the acquisition of another railway, market value can also differ from face value. Although the method of obtaining the debt differs in the two situations, there is no reason why the treatment of debt by acquisition should differ from debt obtained through a bond issue.

Q.11 If market value is determined appropriate, what rate or rate calculation should the CTA use for this debt?

If market value is determined appropriate, unamortized discounts and unamortized premiums on bonds payable should be considered as valuation accounts used in combination with the face value of long-term debt for the purpose of capital structure determination. That is, the unamortized bond discounts should reduce long-term debt and unamortized premiums should increase long-term debt. As can be seen in Table 10, in each year the balance represents the value of the liability and reported interest will be the required market yield at issuance.

Although interest rates may change over the life of the bonds affecting the market value of the long-term debt, it is important to note that interest rate changes after issuance have no effect on the accounts.

VI. CONCLUSIONS

The previous sections have explained the underlying principles and addressed specific questions posed about capital structure methodology. In concluding, it would be useful to review what information about the Agency's capital structure determinations is available to interested parties for comment.

The most recent Agency information about the railways' capital structure was in the 2020/2021 crop year cost of capital determinations. Table 11 shows the approved WACC for CN and CP. Using CN as an example, we can see from Table 11 that the approved WACC is 5.19%. CN's 2020/2021 crop year cost of capital rate determination is very transparent on the methodology for arriving at the cost of equity capital. Interested parties are informed on the methodology and data sources for the calculations.

However, this is not the situation with regard to capital structure. Regulatory financial statements are not provided. There may be some capital structure information that can be withheld because it is commercially sensitive. However, it seems unlikely that argument could apply to all capital structure information, even the weights in the WACC calculation. Note that the capital structure weights for the different sources of capital are not provided for either railway.

Providing more of the railways' capital structure information would facilitate better responses to questions in the Consultations.

TABLE 1
Page 1 of 1

GROSS METHOD CALCULATION OF WEIGHTED AVERAGE COST OF CAPITAL AND EARNINGS REQUIREMENT FOR A HYPOTHETICAL COMPANY

Balance Sheet

Net Plant	$104	Common Equity	$40
		Preferred Stock	10
		Debt	50
Current Assets	12	Current Liabilities	6
	____	Accm. Def. Taxes	10
Rate Base	$116	Capital	$116

Cost of Capital Calculation

Capital Source	Fraction of Capital	Cost	Factor
Common Equity	34.48%	14%	4.83%
Preferred Stock	8.62	8	.69
Debt	43.10	7	3.02

Current Liabilities	5.17	0	0.0
Accm. Def. Taxes	8.62	0	0.0
WACC			8.53%

Earnings Requirement = Rate Base x WACC
= $116 x .0853 = $9.90

TABLE 2
Page 1 of 1

NET METHOD CALCULATION OF WEIGHTED AVERAGE COST OF CAPITAL AND EARNINGS REQUIREMENT FOR A HYPOTHETICAL COMPANY

Balance Sheet

Net Plant	$104	Common Equity	$40
		Preferred Stock	10
		Debt	50
Working Capital	6		
Less: Accm. Def. Taxes	10		
Rate Base	$100	Capital	$100

Cost of Capital Calculation

Capital Source	Fraction of Capital	Cost	Factor
Common Equity	40.00%	14%	5.60%
Preferred Stock	10.00	8	.80
Debt	50.00	7	3.50
WACC			9.90%

Earnings Requirement	=	Rate Base	x	WACC		
	=	$100	x	.0990	=	$9.90

TABLE 3
Page 1 of 1

GROSS METHOD CALCULATION OF WEIGHTED AVERAGE COST OF CAPITAL AND EARNINGS REQUIREMENT FOR A HYPOTHETICAL COMPANY WITH TWO DIVISIONS

Balance Sheet

Net Plant			Common Equity		$40
Division A	$60		Preferred Stock		10
Division B	44	$104	Debt		50
Current Assets:			Current Liabilities:		
Division A	$10		Division A	$3	
Division B	2	12	Division B	1	
			General	2	6
			Accm. Def. Taxes:		
			Division A	$6	
		____	Division B	4	$ 10
Rate Base		$116	Capital		$116

Cost of Capital Calculation

Capital Source	Fraction of Capital	Cost	Factor

Common Equity	34.48%	14%	4.83%
Preferred Stock	8.62	8	.69
Debt	43.10	7	3.02
Current Liabilities	5.17	0	0.0
Accm. Def. Taxes	8.62	0	0.0
WACC			8.53%

Earnings Requirement = Rate Base x WACC
= $116 x .0853 = $9.90

TABLE 4
Page 1 of 1

NET METHOD CALCULATION OF WEIGHTED AVERAGE COST OF CAPITAL AND EARNINGS REQUIREMENT FOR A HYPOTHETICAL COMPANY WITH TWO DIVISIONS

Balance Sheet

Net Plant			Common Equity	$40
Division A	$60		Preferred Stock	10
Division B	44	$104	Debt	50
Working Capital:			Current Liabilities:	
Division A	$7		General	2
Division B	1	8		
Less: Accm. Def. Taxes:				
Division A	$6			

Division B	4	10			
Rate Base		$102	Capital		$102

Cost of Capital Calculation

Capital Source	Fraction of Capital	Cost	Factor
Common Equity	39.22%	14%	5.49%
Preferred Stock	9.80	8	.78
Debt	49.02	7	3.43
Current Liabilities	1.96	0	0.0
WACC			9.71%

Earnings Requirement = Rate Base x WACC
= $102 x .0971 = $9.90

TABLE 5
Page 1 of 2

NET METHOD CALCULATION OF WEIGHTED AVERAGE COST OF CAPITAL AND EARNINGS REQUIREMENT FOR A HYPOTHETICAL COMPANY ON A DIVISIONAL BASIS

Division A: Balance Sheet

Net Plant	$ 60	Common Equity	$23.92
		Preferred Stock	5.98
		Debt	29.90
Working Capital	7	Current Liabilities:	
		General	1.20
Less: Accm. Def. Taxes	6		
Rate Base	$ 61	Capital	$ 61

Cost of Capital Calculation

Capital Source	Fraction of Capital	Cost	Factor
Common Equity	39.22%	14%	5.49%
Preferred Stock	9.80	8	.78
Debt	49.02	7	3.43
Current Liabilities	1.96	0	0.0
WACC			9.71%

Earnings Requirement = Rate Base x WACC
= $61 x .0971 = $5.92

…. (Continued)

TABLE 5
Page 2 of 2

NET METHOD CALCULATION OF WEIGHTED AVERAGE COST OF CAPITAL AND EARNINGS REQUIREMENT FOR A HYPOTHETICAL COMPANY ON A DIVISIONAL BASIS (Continued)

Division B: Balance Sheet

Net Plant	$ 44	Common Equity	$16.08
		Preferred Stock	4.02
		Debt	20.10
Working Capital	1	Current Liabilities:	
		General	.80
Less: Accm. Def. Taxes	4		
Rate Base	$ 41	Capital	$ 41

Cost of Capital Calculation

Capital Source	Fraction of Capital	Cost	Factor
Common Equity	39.22%	14%	5.49%
Preferred Stock	9.80	8	.78
Debt	49.02	7	3.43
Current Liabilities	1.96	0	0.0
WACC			9.71%

Earnings Requirement = Rate Base x WACC
= $41 x .0971 = $3.98

TABLE 6
Page 1 of 2

GROSS METHOD CALCULATION OF WEIGHTED AVERAGE COST OF CAPITAL AND EARNINGS REQUIREMENT FOR A HYPOTHETICAL COMPANY ON A DIVISIONAL BASIS

Division A: Balance Sheet

Net Plant	$ 60	Common Equity		$23.92
		Preferred Stock		5.98
		Debt		29.90
Current Assets	10	Current Liabilities:		
		General	$1.20	
		Division	3.00	4.20
	____	Acc. Def. Taxes		6.00
Rate Base	$ 70	Capital		$ 70

Cost of Capital Calculation

Capital Source	Fraction of Capital	Cost	Factor
Common Equity	34.17%	14%	4.78%
Preferred Stock	8.54	8	.68
Debt	42.72	7	2.99
Current Liabilities	5.99	0	0.0
Accm. Def. Taxes	8.57	0	0.0
WACC			8.46%

Earnings Requirement	=	Rate Base	x	WACC		
	=	$70	x	.0846	=	$5.92

…. (Continued)

TABLE 6
Page 2 of 2

GROSS METHOD CALCULATION OF WEIGHTED AVERAGE COST OF CAPITAL AND EARNINGS REQUIREMENT FOR A HYPOTHETICAL COMPANY ON A DIVISIONAL BASIS (Continued)

Division B: Balance Sheet

Net Plant	$ 44	Common Equity		$16.08
		Preferred Stock		4.02
		Debt		20.10
Current Assets	2	Current Liabilities:		
		General	$ .80	
		Division	1.00	1.80
		Accm. Def. Taxes		4.00
Rate Base	$ 46	Capital		$ 46

Cost of Capital Calculation

Capital Source	Fraction of Capital	Cost	Factor
Common Equity	34.95%	14%	4.89%
Preferred Stock	8.74	8	.70
Debt	43.69	7	3.06
Current Liabilities	3.92	0	0.0
Accm. Def. Taxes	8.70	0	0.0
WACC			8.65%

Earnings Requirement	= Rate Base	x	WACC			
	= $46	x	.0865	=	$3.98	

TABLE 7
Page 1 of 1

PRICE CALCULATION OF A 3 YEAR 10% ANNUAL COUPON BOND WHEN MARKET YIELD IS 10%

Cash Flows	Interest		Principal		
20X1	$100				
20X2	100				
20X3	100	+	$1,000		
Total Cash Flows	$300	+	$1,000	=	$1,300
Present Value of Cash Flows at 10% Market Yield	$248.69	+	$ 751.31	=	$1,000

TABLE 8
Page 1 of 2

PRICE CALCULATION OF A 3 YEAR 8% ANNUAL COUPON BOND WHEN MARKET YIELD IS 10%

Cash Flows	Interest		Principal		
20X1	$ 80				
20X2	80				
20X3	80	+	$1,000		
Total Cash Flows	$240	+	$1,000	=	$1,240
Present Value of Cash Flows at 10% Market Yield	$198.95	+	$ 751.31	=	$ 950.26
Discount	$1,000	-	$ 950.26	=	$ 49.74

TABLE 8
Page 2 of 2

PRICE CALCULATION OF A 3 YEAR 12% ANNUAL COUPON BOND WHEN MARKET YIELD IS 10%

Cash Flows	Interest		Principal		
20X1	$ 120				
20X2	120				
20X3	120	+	$1,000		
Total Cash Flows	$ 360	+	$1,000	=	$1,360
Present Value of Cash Flows at 10% Market Yield	$ 298.43	+	$ 751.31	=	$1,049.74
Premium	$1,049	-	$1,000	=	$ 49.74

TABLE 9
Page 1 of 1

AMORTIZATION OF DISCOUNT FOR A 3 YEAR 8% ANNUAL COUPON BOND WHEN MARKET YIELD IS 10%: STRAIGHT LINE METHOD

(1) Date	(2) Cash Interest	(3) Recorded Interest[1]	(4) Discount Reduction[2]	(5) Balance (Face Value – Discount)[3]
20X0				$ 950.26
20X1	$ 80	$ 96.58	$16.58	966.84
20X2	80	96.58	16.58	983.42
20X3	80	96.58	16.58	1,000.00
Total	$240	$289.74	$49.74	

[1]Column (2) + column (4)

[2]Discount / 3 = $49.74 / 3 = $16.58

[3]Start of year balance + column (4)

TABLE 10
Page 1 of 2

AMORTIZATION OF DISCOUNT FOR A 3 YEAR 8% ANNUAL COUPON BOND WHEN MARKET YIELD IS 10%: EFFECTIVE INTEREST METHOD

(1) Date	(2) Cash Interest	(3) Effective Interest[1]	(4) Discount Reduction[2]	(5) Balance (Face Value – Discount)[3]
20X0				$ 950.26
20X1	$ 80	$ 95.03	$15.03	965.29
20X2	80	96.53	16.53	981.82
20X3	80	98.18	18.18	1,000.00
Total	$240	$289.74	$49.74	

[1]10% of start of year balance in column (5)

[2]Column (3) – column (2)

[3]Start of year balance in column (5) + column (4)

TABLE 10
Page 2 of 2

AMORTIZATION OF DISCOUNT FOR A 3 YEAR 12% ANNUAL COUPON BOND WHEN MARKET YIELD IS 10%: EFFECTIVE INTEREST METHOD

(1) Date	(2) Cash Interest	(3) Effective Interest[1]	(4) Premium Reduction[2]	(5) Balance (Face Value + Premium)[3]
20X0				$1,049.74
20X1	$120	$104.97	$15.03	1,034.71
20X 2	120	103.47	16.53	1,018.18
20X3	120	101.82	18.18	1,000.00
Total	$360	$310.26	$49.74	

[1]10% of start of year balance in column (5)

[2]Column (2) – column (3)

[3]Start of year balance in column (5) - column (4)

TABLE 11
Page 1 of 2

CN

**COST OF CAPITAL
AND ASSOCIATED COST RATES
AS AT DECEMBER 31, 2019
AS APPROVED BY THE CANADIAN TRANSPORATION AGENCY**

	WEIGHTED RATE
Long-Term Debt	1.64%
Future Income Taxes and Investment Tax Credits	0.00%
Common Equity	3.55%
Approved Cost of Capital Rate for the 2020/2021 Crop Year	5.19%

Source: Canadian Transportation Agency, 2020/2021 Crop Year Cost of Capital Rate for the Canadian National Railway Company for the Transportation of Western Grain, LET-R-30-2020, Appendix B.

…. (Continued)

TABLE 11
Page 2 of 2

CP

**COST OF CAPITAL
AND ASSOCIATED COST RATES
AS AT DECEMBER 31, 2019
AS APPROVED BY THE CANADIAN TRANSPORATION AGENCY**

	WEIGHTED RATE
Long-Term Debt	3.21%
Future Income Taxes and Investment Tax Credits	0.00%
Common Equity	1.58%
Approved Cost of Capital Rate for the 2020/2021 Crop Year	4.79%

Source: Canadian Transportation Agency, 2020/2021 Crop Year Cost of Capital Rate for the Canadian Pacific Railway Company for the Transportation of Western Grain, LET-R-29-2020, Appendix B.

SCHEDULE "B"

Stakeholder Letters

WESTERN GRAIN ELEVATOR ASSOCIATION

Ste. 1320-220 Portage Ave.
WINNIPEG, Manitoba
R3C 0A5

Telephone: (204) 942-6835
Fax: (204) 943-4328
E-Mail: wgea@mts.net

November 23, 2020

Canadian Transportation Agency 15
Eddy Street
Gatineau, QC
J8X 4B3

ferroviaire-rail@otc-cta.gc.ca

Dear Sir/Madam,

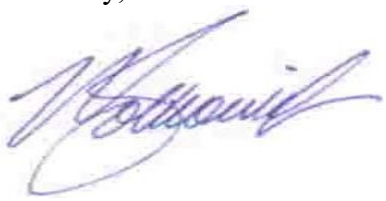
Re: Consultation on Cost of Capital Rates

The Western Grain Elevator Association (WGEA) is an association of six major grain businesses operating in Canada, which collectively handle approximately 95% of western Canada's bulk grain exports. Its members account for approximately 20% of railway revenues and pay annual total rail freight of 1.6 billion dollars. Our members are listed at the bottom of our letterhead.

The outcome of the Canadian Transportation Agency's Consultation on the methodology to determine net rail investment and capital structure for the calculation of cost of capital rates, is important to the entire grain sector. In this regard, the WGEA has joined with McMillan LLP, Teck Resources Limited, the Western Canadian Shippers Coalition, the Mining Association of Canada and the Canadian Canola Growers Association in support of the enclosed submissions.

Thank you in advance for considering our views on this important matter.

Yours truly,



Wade Sobkowich
Executive Director

The Mining Association of Canada | L'association minière du Canada

November 23, 2020

Canadian Transportation Agency 15
Eddy Street
Gatineau, QC J8X
4B3
ferroviaire-rail@otc-cta.gc.ca

Dear Sir/Madam,

Re: Railway Cost of Capital Consultation

On behalf of the Mining Association of Canada, please accept this letter for the submission being made on our behalf, and on behalf of our members, by McMillan LLP to the above consultation.

MAC is the national voice of the mining industry, representing more than 40 member companies and 50 associate member companies in the mining, smelting, refining and primary metal manufacturing sectors. MAC promotes the industry nationally and internationally, works with governments on policies affecting the sector and educates the public on the value mining brings to the economy and the daily life of Canadians.

Rail service is an issue of central importance to the competitiveness of the Canadian mining industry. In 2019, our members employed more than 719,000 workers, contributed $109 billion to Canada's GDP, and accounted for $106 billion of Canadian products exported – roughly one-fifth of Canada's total for that year. A testament to this international reach, mining is the largest corporate customer group of Canada's Class I railways, accounting for half (53.3% in 2019) of total rail freight volume on an annual basis. As such, mining is the most significant corporate stakeholder to rail transportation policy and regulatory consultations.

The outcome of the Canadian Transportation Agency's Consultation on the methodology to determine net rail investment and capital structure for the calculation of cost of capital rates, is important to the mining industry, given the significant volumes the industry transports by rail. Noting this, MAC is pleased to join McMillan LLP, Teck Coal, the Western Grain Elevator Association and the Canadian Canola Growers Association in support of these enclosed submissions.

Thank you for your consideration of this submission and I look forward to engaging further with the Agency in its deliberations on these important matters.

Sincerely,

Pierre Gratton President
and CEO

CANADIAN CANOLA GROWERS ASSOCIATION

Helping Farmers Succeed

November 23, 2020

Canadian Transportation Agency
15 Eddy Street
Gatineau, QC
J8X 4B3

Re: Agency Consultation on Cost of Capital Rates

The Canadian Canola Growers Association (CCGA) supports the submission on the above noted consultation prepared by McMillan LLP.

CCGA represents 43,000 canola farmers from Ontario to British Columbia on national and international issues, polices and programs that affect farm profitability. The canola sector contributes $26.7 billion to the Canadian economy annually and supports 250,000 jobs across the country.

Rail transportation is critical to farmers and the industry as we export 90% of Canadian canola production annually to over 50 countries. These exports keep farms successful and help ensure strong rural communities, employment and value-added activities.

CCGA appreciates the opportunity to participate in this

initiative. Sincerely,

Rick White
President &
CEO

Canadian Canola Growers Association
400-1661 Portage Avenue
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