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Consultations
Canadian Transportation Agency
15 Eddy Street
Ottawa Ontario K1A 0N9

Re. Agency Staff Consultation: Capital Structure Methodology

CP would like to express its appreciation to the Canadian Transportation Agency for undertaking this consultation to review certain components of the regulatory cost of capital determination methodology. The cost of capital rate is central to establishing rates and returns for regulated Canadian railway operations, and in other proceedings that are subject to regulatory standards. It is therefore important to ensure that the underlying methodology is sound, and accurately reflects the economic realities of the railway enterprise.

CP's response in the following pages will intentionally avoid discussion of broad policy issues. We have chosen, instead, to focus on the relatively narrow technical issues raised in the consultation document. These include:

- Composition of the net rail investment
- Treatment of intercompany financing
- Calculation of the investor financed working capital amount

These issues are addressed below, in that order. The body of the paper develops CP's position on these issues. The final section will explicitly address the consultation questions, relying on the arguments and evidence developed in the body of the paper.

Thank-you again for your time and your interest,

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Net Rail Investment – Treatment of Land

1) The consultation document proposes that the "Net Rail Investment comprises … the net book values of property assets defined in the Uniform Classification of Accounts (UCA) accounts 102-195.

2) Conspicuously missing from that listing is UCA 101 – Land. This raises the issue of whether the value of land owned by the railway, and used for the purposes of providing railway services, constitutes a valid component of the Net Rail Investment, and should earn a return for its cost of capital.

3) The issue may be dealt with by posing, and answering, three related questions:

    a. What are the guiding principles that should be applied in determining whether a given rate of return for cost of capital is reasonable?

    b. Should the value of lands used in railway operations be included in this determination, in the specific cases of the Canadian regulated railways?

    c. If so, on what basis should the value of land be included?

<u>What are the guiding principles that should be applied in determining whether a given rate of return for cost of capital is reasonable?</u>

4) The first question may be more fully expressed as: "on what basis may we determine that a given regulated rate of return is appropriate or optimal, given the overarching intent of the regulations?" Should it be the minimum rate that would sustain current levels of service? Should it be a relatively high rate, so as to encourage greater investment and expansion? Should it consider the principle of fairness to the equity investor? Should it position the railway as a public utility to be operated primarily for the benefit of the users of its services?

5) In dealing with this question, we can look first to the existing regulations which may prescribe a basis for determining an appropriate rate of return for cost of capital. The Railway Costing Regulations SOR/80-310 provide the following guidance, as per section 7(b):

> "there shall be included in the variable costs an allowance for cost of capital based on a rate of return, including an allowance for income tax, that, in the opinion of the Committee, is appropriate for CP Rail (a Division of Canadian Pacific Limited) applied to the variable portion of the net book value of the assets related to the movement of the traffic".

6) Thus the regulation provides that the rate of return must include an allowance for income tax, and otherwise be, in the opinion of the committee, "appropriate" for CP Rail. The regulation is not explicit on how that rate should be derived.

7) Two points should be noted about the Railway Costing Regulations. The first is that it is written with reference to the superseded Railway Act. Nevertheless, it is still the effective regulation governing the determination of railway costs. The second point is that the regulation specifies that only a rate for CP Rail should be considered. It is widely understood that this regulation was written in a time when it was not possible, for various reasons (see "Reasons for Order No. R-6313"), to determine a useful capital structure for Canadian National, the other Canadian prescribed railway. That situation has been arguably remedied, so that the Canadian Transportation Agency (CTA) now regularly determines the cost of capital rate for both CP and CN. These points need not be pursued.

8) Since the Regulations are not explicit on what constitutes an appropriate rate of return, we next examine the Orders and Decisions of the CTA and previous commissions. There have been a number of landmark decisions: Order No. R-6313 of the CTC and the supporting Reasons for Order No R- 6313, the 1985 Cost of Capital Methodology Decision, the 1997 decision 125-R-1997, the 2004 decision 52-R-2004, and the 2011 decision 425-R-2011. All of these documents deal with various important aspects of the process of determining a regulatory capital structure and cost of capital rate for the regulated railways.

9) Within these documents are found a number of guiding principles and arguments accepted by the relevant agency in charge at that time. These include:

   a. That the return should be sufficient to cover the costs of interest on debt, taxes, and a return to equity investors (Reasons for Order R-6313, 1969);

   b. That the rate of return to investors should be sufficient to attract new capital (Royal Commission on Transportation, Volume III, 1961);

   c. That the rate of return on equity should be greater than that on debt, in general, due to the relatively greater amount of risk that is assumed by the equity investor (Reasons for Order R-6313, 1969);

   d. That users of railway services should not be charged a cost of capital for assets that are not required for continued rail operations (Reasons for Order R-6313, 1969);

10) These principles, and others that may be found in the literature, provide important guidance. But nowhere in these documents, as far as we have been able to determine, is there a single guiding statement that provides the fundamental principle(s) which may be used to determine whether a given rate of return is reasonable for the purpose of the regulations.

11) Therefore we might turn to other relevant sources for guidance. One useful source may be found in the 1929 Supreme Court of Canada ruling on *Northwestern Utilities Ltd. V. Edmonton (City)*, at paragraph 192:

> By a fair return is meant that the company will be allowed as large a return on the capital invested in its enterprise (which will be net to the company) as it would receive if it were investing the same amount in other securities possessing an attractiveness, stability and certainty equal to that of the company's enterprise.

12) This definition has been reitereated and approved in subsequent literature, recently in *Alberta Utilities Commission 2013 Generic Cost of Capital, 2191-D01-2015*, issued in March of 2015.

13) The definition serves to provide several useful guiding principles:

    a. It provides that the return on equity will be competitive with other public equity offerings, which implies that it will be sufficient to attract new invested capital;

    b. It implies that the return will not be excessive given the characteristics of the subject enterprise, which further implies that the customers of the enterprise would not be charged excessive rates for service;

    c. It provides that a regulated enterprise should be dealt with on an equal footing with non-regulated private enterprises, to the extent possible given the existing regulations, and;

    d. It implies a certain level of fairness to the equity holder, such that the return earned on their investment is not unduly subject to arbitrary changes to the regulations.

14) This definition does appear to meet the intent of the regulation, though it should be added that, in the current context the regulation only extends to the railway network and assets used for railway purposes. Therefore the calculation of a “fair return” would not consider non-railway assets.

15) This discussion will rely on the Supreme Court definition, with the preceding qualifier, as a useful guide to further develop its position.

<u>Should the value of lands used in railway operations be included in the determination of a return on capital?</u>

16) Having dealt with the question of what constitutes a reasonable rate of return for the cost of capital, we now turn to whether that return should include an allowance for the cost of capital invested in land.

17) The CTA consultation document proposes that land not be included in the Net Rail Investment. However, the Canada Transportation Act and related regulations do not make any explicit statement that land used in railway operations should not be provided a return for cost of capital. In fact, it is possible to read the regulations as stating quite the opposite. The CTA decision 425-R-2011 at para. 19 provides that:

> The net rail investment is defined as the gross book value of all railway assets less accumulated depreciation.

18) There two plausible reasons why one might consider excluding land from the NRI:

a. That the land was originally provided to the railway as a grant, and thus does not represent invested capital;

b. That the Railway Costing Regulations specify that the rate of return for cost of capital be applied to the variable portion of the net book value of assets related to the movement of traffic (see Paragraph 5, above);

19) We shall treat these reasons in order. The first line of reasoning would imply that the land owned by the railway was granted to it by the government, and thus the railway should not expect a return on capital for that land. This line of reasoning is problematic for a number of reasons.

20) First, it is true that the original contract of 1881, which was incorporated into the Act ("An Act respecting the Canadian Pacific Railway"), provided for grants of money and land to be used by the Company to finance the construction of the railway. However, this land was not simply given to the Company to dispose of as it wished. It was, in a very real sense, earned by the Company by virtue of its meeting obligations under the contract.

21) Also, the land became the rightful property of the railroad, in a legal sense, by virtue of the explicit terms of the contract.

22) Foremost, it must be remembered that the directors of the Company undertook an enormous task, and incurred monumental risk, when they accepted the contract. They were committed to build a railroad through lands that were largely un-explored. At the time, it was generally believed that building a line along the north shore of the Great Lakes would be impossible, due to the harsh terrain. The company was committed to drive the railroad to the Pacific Ocean, through the mountains, when it was not yet known that there existed a practical pass through the mountains along the route. The Company was to perform its obligations under such conditions that political interests and competitive pressures were conspiring to ensure its failure: American railroads were attempting to intercept its network and render the CP essentially value-less, British investors were reluctant to invest in yet another Canadian railroad that would likely not be completed, and influential government players were pushing to circumvent the 20-year "15 mile clause" that would prevent other railroads from building into the United States and thus cutting off the CP.

23) Further, the contract required that the directors of the Company were to invest five million dollars of their personal capital into the stock of the railroad, and place on deposit a further one million dollars with the government against the completion of the railroad. This was in a time, it should be remembered, when $100,000 was considered to be a personal fortune. On top of these requirements, the government would hold one-fifth of the value of the land grants as a deposit against the successful operation of the railway for ten years. Construction of the railroad was expected to consume the next five to ten years of the lives of the directors, with no prospect of realizing a meaningful return on their investments until the end of such time.

24) Two types of land grant were provided for in the contract. The first was a grant of 25 million acres, selected from alternating section within 24 miles of the right of way. The second was to give the Company a right to acquire any public lands that were available, and were required for the actual right of way and railway facilities. The 25 million acre grant was to be released to the Company on a pro-rata basis, as successive sections of the main-line were completed. These lands were intended as a tool to underwrite the financing required for construction and the acquisition of lands. This is made clear in the language of the contract, which provides a mechanism whereby the Company could issue land grant bonds against those lands, at a value of $1 per acre.

25) The 25 million acre grant was a tool used by the government to achieve two goals: first, to provide financing to the railroad while minimizing the amount of cash that would have to be committed, and second, to encourage the settlement and development of the Canadian West. In order to ultimately realize the value of the land, the railroad would have to sell it, not only to monetize the asset but also to ensure development of a market around the railroad. Thus, while the land was certainly of value to the railroad, it also was a clever and carefully considered mechanism that suited the government's objectives.

26) In order to put the value of the grant into perspective we can look at the nominal valuation of $1 per acre. And in fact, much of these lands were sold to prospective settlers for around $1 per acre. One dollar, at that time, was roughly equivalent to an average day's wages for the general Canadian population - not a large sum to pay for an acre of land. But this makes sense when we consider the fact that the land along the planned route was largely undeveloped and unoccupied, that its value for agriculture was largely unknown, and further, that the settlers of this land were expected to pick-up stakes and move onto their land to build a viable homestead. The real cost of the land included a substantial amount of risk, taken on by both the Company and any prospective settler.

27) At the time that the Canadian Pacific railroad was launched, there was no meaningful market in the region that it was to serve. The railroad itself was to be the tool to open up and develop that market. A commercial enterprise, left to its own devices, would likely not be willing, and in all likelihood would not be financially able, to build a full-scale railroad into such a region before there existed an economically viable market for it to serve. The grants of land and financing provided under the contract were necessary inducements to initiate the construction at a time that was politically convenient, but economically impractical.

28) Therefore, the land grant was, in essence, a payment in compensation to the Company for its undertaking of a substantial risk which was otherwise not in its own interest, but served the interests of the government. Furthermore, the value of the grant itself was not, at that time, as large as one might initially presume. This is because there was a large amount of risk associated with the land itself, further because the future value of the land was dependent on the uncertain success of the railroad, and also because one-fifth of the grant was to be held by the government against the successful operation of the railroad for a full decade after its completion.

29) The second type of land grant was of the land required for the road-bed of the railway and railway facilities. The government granted any public lands, where they were available and required, for the actual construction of the railroad. Where public lands were not available, the Company would have to acquire any needed lands from private owners using its own capital stock.

30) Lands granted for road-bed and facilities were not eligible for the land-bond program, although the Company could mortgage sections of track that had been completed.

31) As with the 25 million acre grant, this land grant was a necessary inducement for the construction of the railway. Had the government required that the Company purchase these public lands, this would simply serve to increase the cost to the Company, and thus the amount of inducement required to undertake the venture on the government's terms. Furthermore, the cost to the government was negligible considering the fact that these lands and all of the lands of the unsettled West would have little economic value until that value had been unlocked by the railroad.

32) Finally, the contract with the government provides in no uncertain terms that, once completed, the railroad became the "absolute" property of the Company. There is no provision whatsoever that the government would maintain any future claim on the land grants, or that there were to be any ongoing obligations by the Company to the government or to the public with respect to those lands.

33) CP's position is that the lands granted under the 1881 contract were earned compensation for risks assumed and obligations met, and thus represent property owned by the shareholders on which they should expect to receive normal returns.

34) Now, even if the reader is not convinced by the discussion above regarding the 1881 grants, it remains that much of CP's land has been acquired on a commercial basis since the completion of the original main line. Therefore, exclusion of land from the NRI implies excluding not only any of the remaining original grant lands, but also the exclusion of all lands acquired on a commercial basis. In that case, the express exclusion of land may inadvertently create a disincentive to acquire lands that may be required, for example, to lengthen sidings or build double-mainline track.

35) If the preceding arguments leave the reader unconvinced, there is yet one more argument for including land in the Net Rail Investment. It is this: that the cost base, to which the cost-of-capital rate of return is applied, already excludes the value of land. As noted in paragraph 5, above, the

costing regulations state that the allowance for cost of capital is applied to the "variable assets" only. In fact, the cost base of the MRE does not include a cost for land, and the VRCPI does not track inflation for land. Therefore, if the intent is to ensure that the railroad is not compensated for cost of capital on land, this end has already been achieved. To further exclude land from the Net Rail Investment used to determine the regulatory cost of capital rate would be to apply a compounded discount – in other words, it would be a case of double-counting. This can be demonstrated as follows:

$$Return = Cost\ Base\ \times R$$

Where:

Return	is the annual dollar value return allowed for cost of capital
Cost Base	is the total dollar cost included in the MRE base year
R	is the regulatory cost of capital rate

This can be further decomposed.

$$Return = [Properties - Land + Working\ Capital]\ \times R$$

Where:

Properties	is the value of all railway properties, as at the base year
Land	is the value of all railway lands, as at the base year
Working Capital	is the value of working capital included in the Cost Base

We see that the allowed return is calculated as the regulatory cost of capital, applied to the total value of railway properties, not including land, plus working capital. This represents the state of affairs as intended in the Railway Costing Regulations.

The expression used to determine the regulatory cost of capital rate *R* may be written as:

$$R = (W_d\ \times R_d) + (W_t\ \times 0) + (W_e\ \times R_e)$$

Where:

W_d	is the relative weight of debt, expressed as a percentage, in the railway capital structure
W_t	is the relative weight of the FITL, expressed as a percentage, in the railway capital structure
W_e	is the relative weight of equity, expressed as a percentage, in the railway capital structure
R_d	is the weighted average cost rate of railway debt
R_e	is the regulatory return on equity rate

Now let us see what happens if we remove the value of land from the Net Rail Investment, used to calculate the regulatory cost of capital. In that case, the expression would be modified as follows:

$$R' = (W_d \times R_d) + (W_t \times 0) + [(W_e - Land) \times R_e] \ < \ R$$

Where:

R' is the regulatory cost of capital rate, with the value of land removed from the capital structure

It follows that *R'* is less than *R*. Hence, if we now calculate the allowed return on capital using *R'*, we get:

$$Return' = [Properties - Land + Working\ Capital] \times R' \ < \ Return$$

Where:

Return' is the dollar value return allowed for cost of capital, derived using the modified cost of capital rate R'

It is found that, while *Return* already incorporates a discount for the value of land in the cost base, *Return'* is smaller than *Return*. This is because *Return'* incorporates a second discount for the value of land, by deducting the value of land from the capital structure used to calculate the regulatory cost of capital rate. Hence, *Return'* incorporates a double, or compounded, discount for the value of land, as follows:

a. The regulatory rate of return is applied to a cost base which has been reduced by the value of the land (this is the first discount);

b. The regulatory rate of return is itself reduced, by excluding land from the Net Rail Investment, and then this reduced rate of return is applied to the Net Rail Investment (this is the second discount).

36) In order to illustrate this, let us suppose that the total railway assets are $100, and that the railway land comprises $10 of this value, so that the reduced cost base is $90. Let us further suppose that the regulatory rate of return with land included in the Net Rail Investment would be 10%, and with land excluded it would be 9%. Then:

a. The allowed return with land included in the NRI would be $90 x 10% = $9.00;

b. The allowed return with land deducted from the NRI would be $90 x 9% = $8.10

Again, the cost base for regulatory costing purposes is defined in the regulations, and it does not include land. Scenario "a" then, would appear to be the intended mechanism under the regulation. CP does not submit a position here regarding the regulation itself. However, clearly scenario "b" is not logical, since under that method the total discount exceeds the size (on a proportional basis) of the asset class which is the basis for that discount.

37) The removal of the value of land from the capital structure, therefore, will result in a return on capital employed that is discounted twice for the same thing. It is difficult to imagine any scenario where this would be the intent of the regulations. Indeed, the regulation states that the cost of capital be applied to the variable portion of the net book value of assets related to the movement of traffic. Again, the regulation does not say anything about how the cost of capital is to be calculated.

38) For these reasons, CP submits that it is necessary to include a value for land in the Net Rail Investment, in order to provide a fair return on capital. A return on land is required in order to attract capital for further expansion. It is also required in order to treat the equity investor on an equal footing with investors in other private enterprises who have expended capital and energy, and assumed risk, in the acquisition of any land that is required to carry out their business.

On what basis should land be valued?

39) We turn now to the question of how to value land, for the purposes of developing a regulatory capital structure. If we take it as a given that the value of land should be included, there are two methods to determine that value. The first is to use book values, and the second is to use market values. Which, then, is more correct?

40) Book values have the noted advantage of being readily determined, being relatively stable from year-to –year, and based on the original cost to the enterprise. These points have been made by the CTA itself (see CTA 425-R-2011, paragraphs 79 and 80).

41) Market values, on the other hand, have the advantage of reflecting the true value of the assets today. Consequently, the market value is the cost to the investor of having her capital invested in the enterprise, as opposed to liquidating that investment to employ in alternative investments or for other uses.

42) There are two important criticisms of market values, as compared to book values. These are that they may be difficult to determine objectively, and that they may be unstable from year to year. These are important considerations in determining a regulatory methodology. However, they are points of practicality, and not of principle. Therefore, if an approach can be found that addresses these concerns, then they should be set aside. This idea will be developed further below.

43) The remaining point is a matter of principle. This is the question of whether it is better, in principle, to evaluate the cost of capital using book values or market values?

44) The argument in favor of book values, in the context of a regulated enterprise, is that the investor is compensated for the original amount of capital invested. This approach justifies a certain sense of fairness towards the investor.

45) This approach also serves to keep rates relatively low. This is because, should the market value of assets exceed their book value, the lower of the two (i.e. the book value) is applied to the cost base. However, if the value of the assets is impaired for some reason, then the assets are usually (though not always – see CTA 125-R-1997) written down so that the impaired value becomes the book value. Hence, the book value approach generally tends towards the lowest valuation.

46) However, there is a policy concern with using book values in place of market values for the purposes of determining a regulatory return on capital. To see why this is so, we refer again to the Supreme Court of Canada definition that was provided in paragraph 11, above. This definition provides that a fair return is one that is as large as the return that an investor would receive when investing in another, similar enterprise.

47) This idea is important because the capital market is an open market in which an enterprise must compete for access to capital. It does this by providing an adequate return to the investor, given the inherent risk and prospects for growth of its enterprise. (More correctly, the equity market will value the enterprise such that it would expect to receive an adequate return.) A prospective investor is therefore primarily interested in the future earnings potential of the enterprise, and the level of risk to those earnings. She is not particularly interested in the book value of the enterprise.

48) It follows that, since the book value of an enterprise is generally lower than its market value (as discussed above), a return on capital calculated using book values may not be adequate to attract capital.

49) This idea can be further demonstrated by considering an enterprise whose only business is to hold land, and to earn a return on that land by charging rent. Let us assume that the market for rented land develops such that the enterprise was able to earn a 5% annual return on the market value of its land, but that same income stream represents a 10% return on the book value of the land (that is, the market value is twice the book value). Let us further assume that the owner of this enterprise could earn an 8% return on her capital if it were invested in another enterprise with similar risks and similar prospects for growth. What is this investor's optimal course of action?

50) The investor is earning 5% on a market value basis, and 10% on a book value basis. Her alternative investment would yield 8%, with no change in risk or prospects. If she liquidated the enterprise she would realize the market value of the land. She could then invest that capital in the alternative, and earn 8% on her capital. If the market value of the land were $1000, then, by moving her capital into the alternative investment she has replaced a $50 annual income stream with an $80 income stream. Note that the book value of her current investment is not germane to this decision.

51) The preceding thought exercise may seem somewhat less theoretical when we consider that many farmers across the country have, in recent years, sold their lands to large-scale agricultural enterprises. These lands were often originally acquired under much the same terms as the Canadian Pacific 1881 grants, under homesteading policies or other mechanisms, and for prices

ranging from $10 per quarter section (160 acres) to $1 or so per acre. Thus, on a book value basis, these lands are nearly worthless. But in reality, prairie farmland is currently valued in excess of $1000 per acre (Statistics Canada, Table 002-0003, at July 1, 2015). The decision to sell, then, is clearly based not on the book value of the land, but on the alternative uses for the invested capital determined by a market valuation.

52) If the purpose of the regulatory return on capital is to ensure that the enterprise is able to attract and retain capital, then a calculation based on market values is clearly superior to one based on book values. Conversely, if the regulatory return on capital were based on the book value of land, then this may create an incentive towards excessive liquidation of land, and under-investment in the enterprise.

53) It may be noted that the market value approach also justifies a sense of fairness to the investor, in that she is treated on equitable terms to an investor who holds shares in a non-regulated enterprise.

54) One possible argument against calculating a return on capital based on market values is that it may reward the investor for more than their original capital investment. That is, the investor may be rewarded for growth in the value of the enterprise's assets, when the investor herself did not contribute to that growth.

55) However, this argument ignores the foundation of equity investing, which is that the investor expects a return commensurate with risks taken. As noted above, an equity investor is principally interested in the earnings of an enterprise, and its prospects for future growth. If that growth should materialize, then it stands to reason that the market value of the enterprise's assets may grow also. This is because the market value of an economic asset is largely determined by its earnings potential.

56) Therefore the change in the valuation of the assets of the enterprise, whether that change is an increase or decrease in value, is nothing more than the embodiment of a portion of the risk profile of that enterprise. And that risk profile was an implicit consideration in the investment decision, for which the investor would have expected to be compensated. Determination of a regulatory cost of capital rate using market values, therefore, recognizes the principle of risk-adjusted valuation, and is in keeping with the CAPM methodology.

57) Now, while the above arguments hold true for railway assets in general, they are uniquely applicable to Land, as a distinct asset class. Here it must be clearly stated that the current discussion is <u>not</u> proposing that the Net Rail Investment be entirely based on market values[1]. Such an approach may be difficult, due to the aforementioned problems of determining a reasonable valuation for many various asset types.

58) In general, railway assets have characteristics that lend themselves reasonably well to standard accounting methods. That is, the assets are consumed over time and replaced on a more or less

Footnote 1 – CP is not arguing that the value of railway properties, in general, should be determined on a market value basis. This position is mainly due to practical considerations. On a theoretical basis, market values for all railway properties may be preferable to book values for cost of capital determination purposes. Further, it is also possible to argue that the valuation of the capital structure, namely debt and equity, should be made on the basis of publicly available market data. CP provides no position on that point in this discussion.

continual basis, so it is possible to establish reasonable schedules of amortization. These characteristics imply that, while the book value of such assets will generally not be equal to their market value, at least the book value is always converging with the market value – albeit over a period of years or decades. While the book values of these assets are perhaps an imperfect tool, there may be other ways to deal with these shortcomings which are beyond the scope of this discussion.

59) Land, as an asset class, is altogether different. Land is not consumed, and it does not depreciate. The book value of a piece of land is never restated from its original acquisition cost. A given piece of land may have been acquired more than 100 years ago. It may have been acquired as an un-improved parcel, with no access to transportation, no local markets, and no immediate prospects for development. It may, indeed, have been acquired at a time when it was not yet known whether that parcel of land would be suitable for any kind of economic activity. All of these considerations would have impacted the value of the land at that time, and these same considerations have thus been calcified in the book value of that land.

60) It is reasonable to suppose that the original investors in the Canadian Pacific would have understood that the company would play an active role in improving the lands that it owned, as well as those around it, by providing a transportation network and market access to those regions. The prospect of an increase in the value of the railway lands would have been an important inducement for those investors to undertake the personal risks and efforts involved in launching the Canadian Pacific enterprise. In other words, the potential change in the value of those lands would have formed a component of the risk profile of their investment.

61) However, any actual changes in the value of those lands, or any lands acquired since, has no prospect of ever being reflected in their book values. Therefore, a return on capital based on the book value of Land does not provide a fair return according to the Supreme Court definition of that term.

<u>Considerations in Establishing a Market Value for Land</u>

62) The above discussion establishes that a cost of capital return based on market value is, in principle, preferable to one that is based on book values – at least in consideration of Land assets. Nevertheless, the two principle drawbacks of market valuations remain: that market values may be difficult to determine, and that they may fluctuate dramatically. As mentioned, these are issues of practicality, not of principle, but they must be dealt with.

63) The first consideration is the potential difficulty of establishing a reasonable market value for land. This is indeed no small matter. The railway owns a number of different types of land across a large geography, most of which are not bought and sold on a regular basis. So a general market valuation based on actual transaction prices is not feasible. And specific studies to determine a market value are complex, and may produce inconsistent results (see for example CTA 260-R-2012 at para. 109).

64) The second consideration is that replacing book values with market values will lead to excessive volatility in the return on capital determination. Certainly, real estate values in general have been quite volatile in recent years. It would not serve anyone's interest, neither the shipper, the investor, or the railway itself, to introduce a high level of volatility into the regulatory process.

65) However, a moderate amount of volatility is expected, and it reflects the economic reality. If no volatility at all were expected, then the regulatory return on capital would simply be set at a fixed rate with no variation from year to year. Volatility in the rate of return is "fair", when it reflects the market conditions of the day. And it also serves to send the correct signals to investors, to ensure that available capital is invested in an optimal matter.

66) In order to address these twin concerns of market valuation it appears necessary that a proxy valuation method be established. Any such method would need to meet certain objectives, some of which are echoed in CTA 425-R-2011:

a. It must be reasonable,
b. It must be reliable,
c. It must be pragmatic,
d. And it must not introduce excessive volatility.

67) A number of possible proxy sources and methods of application may come to mind, the final selection of which is the responsibility of the CTA. However, in order to demonstrate that there exists a practical approach, we will put forward one possible method here.

68) The proposed proxy method is to use the value of railway lands as established for purposes of property taxation. CP pays property taxes annually, and those taxes are determined by the municipalities according to their assessments of the values of those lands.

69) Tax assessments represent an independent valuation, according to established principles. The results are used to drive real economic decisions. And to the extent that the land-owner has any influence on the outcome, the incentive is generally to keep the valuations as low as possible. Therefore, for the purposes contemplated here, the approach is reasonable.

70) Tax assessment information is auditable, and is widely used and accepted by tax authorities and property owners across the country. Therefore, the approach is reliable.

71) The CP network runs through many municipalities, so there are a large number of separate property assessments for CP lands. Combining those assessments into a single value for the CP railway network would certainly require some effort. But the required data is available, and the accuracy of the result can be verified against accounting records of actual taxes paid. The data is also available for audit sampling, by the CTA, similar to other types of regular railway audits. Therefore, the approach is pragmatic.

72) As has been discussed above, changing to a market valuation for Land will introduce some volatility. Land valuations for tax purposes tend to be, in general, less volatile than actual market

conditions. This is a result both of the mechanism of real estate assessment, which relies on broad comparable factors and historical data, and also because high volatility does not serve the interests of either the municipalities or the land-owners. However, if it turns out that, upon investigation of the available data, volatility in the assessed values of railway lands is higher than is deemed acceptable, then such volatility may be reduced by applying an averaging methodology.

73) For example, a three-year running average of the assessed land value may be used, so that no single year would have an undue influence. Or perhaps only a portion of the network value would be updated each year. Similarly, the assed-value approach could be initially phased-in over several years. Through these methods the issue of volatility can be managed.

Summary of CP's Position On the Inclusion of Land in the Capital Structure

74) For all of these reasons, CP submits that:

a. The value of railway lands should be included in the Net Rail Investment for the purposes of calculating a regulatory return on capital, and;

b. Those lands should be valued using a reasonable approximation of their actual market value.

Treatment of Intercompany Financing

75) The Consultation document proposes that "the net cash balance cannot be applied to reduce long-term debt" (Issue 1, Item 3).

76) Under the Background section, explaining the premise of this proposal, the CTA explains that, in the past "CP was allowed to apply its cash balance against its long-term debt". It is also explained that the reason for this adjustment was that "as a subsidiary which engaged in cash transfers between it and the parent company, CP's net cash balance was considered as imputed debt to the parent company."

77) CP respectfully submits that, while it is not inaccurate, this explanation may not fully inform the reader as to the nature of this adjustment. For further guidance we may refer to the 1985 CTC decision on cost of capital, which is the earliest official reference to the practice. At page 21 the CTC states:

> The cash flow approach identified the funds generated by railway operations as well as the uses to which these were put: primarily dividends and new capital programs. By comparing these sources and uses of funds, the annual amount of additional debt incurred or deemed to be retired, could be determined for the rail division

78) Further on in the decision at page 155, where the CTC rules that the cash-flow method will continue to be used and explains its rationale, it went on to state:

> The present "cash flow" methodology for the determination of rail capital structures will be retained since no viable alternative has been found. While criticism focused on the CP Rail capital structure due to its low proportion of debt, the Committee expects this proportion of debt to rise significantly over the next few years due to CP Rail's planned expansion program.

79) Thus, the method was designed to measure "off-balance sheet" financing, and transform it into "on-balance sheet" financing for the purpose of determining the regulatory cost of capital rate. The original method, adopted from 1973 to 2002, was to calculate free cash from operations and compare that figure to the total amount of cash used in payment of dividends and in capital programs. If there was a cash shortfall, then the amount of imputed debt was increased. If there was a surplus, then the imputed debt was decreased. Imputed debt was assigned a rate of return equivalent to the average rate of return of CP's debentures.

80) The consultation document notes that, in a 2002 decision, the CTA instructed CP to begin using the "balance sheet method". The reason given in the 2002 decision is that "This approach is appropriate given the re-organization of the parent company". However, as the CTA points out in the consultation document, the 2002 decision does not define what is meant by the "balance sheet method". Indeed, it is not even clear whether this balance sheet method is a reference to an adjustment for intercompany financing, or whether something else in the capital structure was being altered.

81) We are left to infer that there was context in discussions between the CTA and the railroads that was not included in the 2002 decision document. However, it is reasonable to suppose that the balance sheet method was a reference to an alternative for the cash-flow method, as the CTA proposes in the consultation document. In that case, we can reasonably presume that the actual method employed to calculate CP's capital structure since that time, which has been reviewed and approved annually by the CTA, should be taken to describe what was meant by the "balance sheet method".

82) Cost of capital filings since that time have employed a method which used balance sheet accounts to arrive at a result which was theoretically equivalent to that determined using the cash-flow method, but was simpler to administer. However, the new method is arguably less intuitive.

83) The new method calculates the net change in inter-company financing based on balance sheet accounts, as follows:

$$Intercompany\ Financing = Advances\ to\ Affiliates - Advances\ from\ Affiliates + Cash$$

The net amount of intercompany financing is then added to (if it is a credit) or subtracted from (if it is a debit) the total amount of debentures on the balance sheet.

84) The adjustment can be intuitively understood if we consider what happens to the balance of Cash under different circumstances:

First, let us say that the railway begins the year with a $400 cash balance, that it generates $100 from operations, and that it pays $100 in dividends and invests $100 in its network. We can see that it will end the year with $400 + $100 - $100 - $100 = $300 cash. This is $100 less than it had at the previous year end. If there are no other changes on the balance sheet, then the adjustment will result in a balance of debentures that is $100 greater than in the previous year. In other words, the railway required $100 financing from affiliates, and its debt level was adjusted accordingly.

85) Now let us modify the example slightly. Let us say that the railway again begins the year with $400 cash, generates $100 from operations, pays $100 in dividends, and invests $100 in its network. But in this scenario, CP's parent company advances $150 to the railway. Now we find that the ending cash balance is $400 + $100 - $100 - $100 + $150 = $450.

86) But recall that the intercompany financing adjustment formula applies the net of cash, and advances to and from affiliates, as described above. In this scenario, the adjustment is calculated as the final cash balance, minus Advances From Affiliates, which is $450 - $150 = $300. Again, the final number is $100 lower than in the previous year, which implies that the balance of debentures will be $100 higher than in the previous year. This reflects the fact that the railway required $100 of financing, in excess of its operating cash flow.

87) In this way the reader can walk through numerous scenarios. In all cases it will be found that the adjustment will yield the net change in financing required by the railway.

88) The preceding discussion establishes that the method is an accurate adjustment to the railway's capital structure to reflect changes in intercompany financing. The remaining question, then, is whether this mechanism is still useful in today's environment?

89) What has changed since the debt adjustment principle was first adopted? As the CTA points out, CP has re-organized since then. The CP railroad used to be one of many operating divisions in a large conglomerate. CP Limited is now predominantly a railroad, with other minor financing and real estate operations. In the 1970s and 1980s the CP railroad did not have a separate accounting ledger and set of financial statements.

90) But, Canadian Pacific reorganized in 1996. At that time, the railroad became a legal entity with its own set of accounting books. And yet the CTA did not address the cash-flow adjustment until 2002. Furthermore, the CTA did not discard the cash-flow adjustment in the 2002 decision. Instead it was replaced with a new method that achieved effectively the same result.

91) If we accept the assumption that the intercompany financing adjustment method since the 2002 decision is reflective of the method intended by that decision, then we must conclude that the cash-flow adjustment has continued to be a regulatory requirement, albeit using a different mechanism. So the proposal to eliminate the method today must be based either on a fundamental flaw in the reasoning behind the adjustment, or on some fundamental change in the environment since 2002. Has there been such a change?

92) In fact, CP's structure remains effectively the same today as it was in 1996. The railroad is still a legal entity, owned by a parent company – namely CP Limited. CP Limited still owns other operating subsidiaries. As mentioned above, there are real estate focused subsidiaries, and finance related subsidiaries. But the primary operating entities, other than the Canadian railroad, are of course the US railroads (SOO line, DME etc.).

93) CP Limited's US railroad is a significant, and very active, component of the overall operation. It also generates significant cash flow.

94) Since the CTA does not regulate CP's US operations, the US railroad represents a potential source of intercompany financing to the Canadian regulated railroad. Such financing may be reflected directly as an advance from the SOO to the Canadian railroad, or it may be routed through the parent company. The effect on the regulated railroad's balance sheet in either case is the same.

95) Thus it may be concluded that, while CP's corporate structure is objectively the same today as it was in 1996, for the context of this discussion it is effectively also the same today as it was at the time of the 1985 decision. That is to say, the Canadian regulated railroad still has access to intercompany financing, as it did in 1985.

96) Therefore, the reasoning behind the adjustment is as valid today as it was in 1985. In that case, the only cause for elimination of the adjustment would be that the reasoning behind it is not valid. Let us examine whether that is the case.

97) As noted above, previous decisions make it clear that the reasoning behind the adjustment is to provide an empirical method to separate the capital structure of the regulated entity from that of its parent company. This goal is still valid today, within the spirit of the existing regulations. This is because the capital structure of the regulated entity and that of the parent company and other subsidiaries are distinct, but not independent. They are legally and operationally intertwined.

98) If we take it as a given that the regulations require that a fair return be established for the regulated railroad, as distinct from its parent company and other affiliates, then a separate capital structure must be determined for the regulated railroad. CP's position is that the method used to determine the regulated structure should be objective, and mechanistic, to the extent possible.

99) In reviewing past regulatory decisions (both CTA and CTC), this principle has been adhered to wherever possible. For example, previous decisions set down mechanistic methods to determine the amount of working capital, debt, and equity in the capital structure. The rate of return on equity and debt are both determined objectively. Costing methods are objective and mechanistic. And the intercompany financing adjustment itself was a carefully considered, mechanistic adjustment. Therefore it may be concluded that the goal of an objective and empirical method to determine intercompany financing is in keeping with the spirit of the regulations.

100) The remaining question, then, is whether the logic behind the intercompany financing adjustment is itself flawed.

101) It has already been shown that the current "balance-sheet" method is logically equivalent to the original "cash-flow" method. Therefore it need not be proved, again, that the adjustment functions as intended. But one might still ask whether there is a better alternative, or whether it is better not to adjust for changes in intercompany financing at all. There are several alternative approaches:

    a. Do nothing – that is, leave intercompany advances and cash on the balance sheet as they occur

    b. Eliminate intercompany advances and cash by offsetting the amounts to equity

    c. Eliminate intercompany advances, but not cash, by offsetting the amounts to equity.

102) The first alternative is the most natural, at first glance, because it implies that the balance sheet is not adjusted in any way for changes in intercompany advances. What would be the consequences?

103) Let us say that the parent company advances $100 to the regulated railroad. The advance is recorded as a liability called "Advances from Affiliates", and the proceeds go to cash. The advance is included in the capital structure as a debt item. Since there is no market interest rate for the advance (because it is non arm's length), the interest rate would likely be set either to zero, or to the average cost rate of the railroad's other debentures.

104) If the cost rate were set to zero, then the railroad would find this to be highly punitive. This is because any item having a zero rate of return has a comparatively large, and highly negative, impact on the resulting regulated cost of capital rate. Because they would drag down the regulatory return on capital rate, intercompany advances now have an implicit negative rate of return, so that they have now become a poor use of capital.

105) Therefore, intercompany advances will no longer be provided to the regulated railroad. However, the actual financing needs of the railroad have not changed.

106) Therefore, the railroad will have to turn more often to bank debt, or market debt issues, in order to meet its financing requirements. Both of these debt instruments are commonly used by the railroad, and they have their place. But they also have their costs. These costs include both explicit costs, as well as implicit (or hidden) costs. The explicit costs are the obvious ones: the interest costs and financing fees. The implicit costs are less obvious. These include any discount on market debt offerings. Market debt is often sold at a slight discount to its face value (a premium is also possible but much less common).

107) But there is another hidden cost that may be more significant. This is because the use of intercompany advances allows the parent company to maximize tax efficiency by using cash where it is cheaper, on an after-tax basis, and also by using intercompany financing to move tax-loss credits to wherever they will do the most good. Such transactions are common within the CP Limited conglomerate, and they are often the primary source of intercompany balances. If the treatment of intercompany advances for regulatory purposes creates a negative return on those advances, then the opportunity to apply tax optimization principles will necessarily decrease.

108) Clearly increased financing and tax costs would be a problem for an investor. But why should this be a concern to the users of the railroad? If real financing costs and tax costs go up, then profits must go down. This in turn means that returns to equity investors must go down, so the cost of equity will go up. Given the current mechanism to determine the regulated return on equity, the increased real cost of equity may or may not be reflected in the regulated return on equity (depending on various factors). However, when the real cost of equity goes up, then the financial strength of the company goes down, with the ultimate result that the cost of debt goes up. This will increase both the regulatory cost of capital and freight rates.

109) An increase in real financing costs, and tax costs, is detrimental to equity investors, debt holders, and customers alike.

110) Staying with the same example, what would be the impact if Advances from Affiliates are given a rate of return that is equivalent to the railroad's other debentures? In that case, we must also consider the impact of any advances made by the railroad to other non-rail subsidiaries – these are called "Advances to Affiliates".

111) We can either leave the Advances to Affiliates on the asset side of the balance sheet, or we can show a net value for advances to-and-from affiliates. It is obvious that, if the balances are not

netted in the calculation, then the railroad could itself execute transactions to produce a net position on the balance sheet. In that case, the railroad would simply run a calculation each year to determine whether it is more beneficial to show the balances netted, or separately. The optimal course of action would depend on the relative weights of equity versus debt, and their rate of return, in the capital structure. Clearly, this would be a step in the wrong direction if the goal is to have an objective method.

112) If, on the other hand, the balances are netted in the calculation, then this is nearly equivalent to the intercompany financing adjustment as it exists today. That is to say, the net amount of advances to, and advances from, affiliates will either be a credit or debit position. Since this credit/debit position is ascribed the same rate of return as other debentures, this is functionally the same as adding it directly to the debentures, as is the current practice. The only piece that is missing is to include the change in cash as part of the adjustment.

113) If we imagine a scenario similar to those outlined in paragraphs 84 through 86, but where the cash balance is not included in the adjustment, it becomes apparent why cash must be included. If the railroad is allowed to include Advances to Affiliates as a debit to the adjustment, and cash is not included in the adjustment, then the resulting net balance may not reflect real financing requirements.

114) The "Do nothing" approach is therefore not viable, regardless of how it is implemented.

115) The second option, concerning treatment of intercompany financing, is to eliminate all intercompany advances, as well as cash, with the offsetting entry settling to the shareholder's equity account. In that case, if the net of intercompany advances and cash is a credit balance, then Equity would increase. Conversely, if it is a debit balance, then Equity would decrease.

116) What would be the likely consequences of this approach? We can begin our analysis by recognizing that this method is logically equivalent to the intercompany financing adjustment as it is applied today, except that the net balance (intercompany advances plus cash) would settle against shareholder's equity, instead of debentures.

117) Let us examine this alternative method using the same example. Again, let us say that the railway begins the year with a $400 cash balance, it generates $100 from operations, and that it pays $100 in dividends and invests $100 in its network. Once again the railroad ends the year with $300 cash, $100 less than it had at the previous year end. If there are no other changes on the balance sheet, then the adjustment will result in a balance of equity that is $100 greater than in the previous year.

118) Under normal accounting rules, the equity balance would not have changed. This is because the railroad paid out all of its earnings (assuming, for the moment, that earnings are equivalent to cash from operations) as dividends – hence there is no net change in the equity balance. In our example the railroad benefits from using its excess cash in capital investments.

119) Thus we can see that this method imposes a cost on the railroad for carrying cash. After paying out its normal dividend, the railroad's best use of cash is apparently to invest it in long term assets. The railroad can achieve the largest equity balance, yielding a commensurately greater regulatory cost of capital rate, by spending any excess cash on capital investments.

120) It is counterintuitive that shareholder's equity should increase as a result of spending cash. There has been no change in earnings, and there has been no equity investment.

121) Not only is the result counterintuitive, but it results in an artificial incentive to over-invest in capital assets, and to hold minimal cash. This may result in sub-optimal capital investments, which could in turn lead to higher average operating costs, and ultimately to higher costs of debt and equity. As mentioned, this method also induces the railroad to hold artificially low levels of cash, which may reduce operating flexibility or increase liquidity risk. Again, these results are contrary to the lowest-total-cost principle, and are detrimental to all stakeholders.

122) This leads to the third option, which is to eliminate all intercompany advances by settling them against shareholder's equity, but to leave cash on the balance sheet. Initially this approach would appear to solve the artificial incentive problem noted above. That is, a positive cash balance no longer represents a negative impact on the regulatory cost of capital rate, so there is no artificial incentive to spend all excess cash on capital programs.

123) However, it is readily apparent that the artificial incentive now applies in the opposite direction. That is to say, this method creates an incentive to provide excessive intercompany advances to the regulated railroad. Say, for instance, that the parent company advances $100 to the railroad. The railroad's balance sheet will reflect a $100 increase in cash, and a $100 Advance From Affiliate. The cost of capital balance sheet will be adjusted by settling intercompany advances against shareholder's equity: the Advance From Affiliate account goes to zero, and Equity increases by $100. There is a clear incentive to move all available cash from other subsidiaries into the regulated railroad, via intercompany advances.

124) The foregoing analysis begs the question of whether the current adjustment method might also create an artificial incentive to increase the cash balance on the regulated railroad's balance sheet. Initially it might appear so, because cash is included in the adjustment (see paragraph 83). Thus, all else being equal, a larger cash balance leads to a larger downwards adjustment to debentures.

125) But, recall that the adjustment includes not only cash, but also the net amount of intercompany advances. Therefore, any attempt to transfer cash into the regulated entity via intercompany transfers will create offsetting balances in the Cash account and Advances From Affiliates account. The net impact on the regulated railroad's capital structure is zero. (This idea was illustrated in paragraphs 85 and 86.) Therefore there is no benefit in providing excess financing to the regulated railroad in the form of intercompany advances.

126) It is apparent that the intercompany financing adjustment, as it exists today, is the most accurate and objective method to account for intercompany financing related cash flows.

127) According to the 1985 cost of capital decision, the intercompany financing adjustment has been applied since 1973, well before CP's railroad division had a separate balance sheet. Therefore, the adjustment has been integral to the development of the regulated railroad's balance sheet, and its capital structure, as it exists today.

128) In order to understand why this is so, let us suppose that the regulated railroad had no market debt or bank debt whatsoever on its balance sheet. This does not alter the actual financing needs of the railroad, or of the CP corporation as a whole. In effect, this would require that all of the market debt and bank debt that is actually recorded on the railroad's balance sheet today would have been recorded at the parent company level instead.

129) In that case, the pre-2002 "cash-flow" method would have ensured that all of the financing requirements of the regulated railroad would have been recorded as "imputed debt" on the balance sheet. When the method was changed with the issuance of the 2002 decision, the railroad's financing would have been met via intercompany advances, and the accumulated debt would have been carried on the balance sheet as Advances From Affiliates.

130) For example, if the regulated railroad currently carried one million dollars of total debt on its balance sheet today, all in the form of Long Term Debt, then our hypothetical zero-debt railroad would show a one million dollar Advance From Affiliates instead. (Again, the actual debentures would be carried at the parent company level.) The form is different, but the total amount of debt is the same.

131) This essentially describes the situation as it is today, except that the actual regulated railroad balance sheet also carries a substantial amount of market debentures. How does this impact the capital structure?

132) In fact, the accumulated market debt does not impact the railroad's aggregate capital structure, as compared to the hypothetical zero-debt balance sheet. We can see why this is the case by considering what happens to the zero-debt balance sheet when we introduce a market debenture.

133) Let us say that, at the beginning of the year, the railroad is carrying $1000 of Advances From Subsidiaries as its only source of non-equity financing. At some point in the year the railroad issues $500 worth of debt under a market instrument. This impacts the balance sheet as follows: Cash increases by $500, and Long Term Debt increases by $500.

134) If the railroad does nothing else to its balance sheet that year, then the intercompany financing adjustment ensures that the capital structure does not change. The adjustment is the net of $500 cash and $1000 intercompany advances, which yields a credit position of $500. The $500 credit is added to the $500 Long Term Debt, resulting in a final debt position of $1000. Thus it is shown that issuing market debt effectively "consumes" the intercompany financing balance recorded on the balance sheet, but the total amount of debt (as well as the resulting capital structure) is unchanged.

135) The intercompany financing adjustment effectively ensures that the total amount of debt shown on the regulated railroad's balance sheet is a result of actual financing requirements. Lacking this mechanism the only recourse is to examine each new debt issue and make a judgment call as to whether it should be classified as "rail" or "non-rail", based on the intended use of the proceeds. This will never be an objective exercise because cash is a fungible asset which can, and will, be used wherever it is required regardless of any stated intention. It would always be in the railroad's interest to label new debt items in such a way that they are deemed to be non-rail in nature.

136) The intercompany financing adjustment ensures that the regulated railroad's capital structure carries the appropriate amount of debt, given the financing requirements and cash flows of the company.

137) There is one final potential objection to the intercompany financing adjustment, as it is applied today, which must be considered. This is that the company may be rewarded for carrying extra cash on its balance sheet. While it has already been shown that the railroad would not benefit by inflating its cash balance using intercompany financing, it is possible that it may benefit by retaining its cash by paying out fewer dividends.

138) Whatever methods are applied to determine the capital structure for the regulated entity, a primary objective should be that they do not unduly influence actual business practices. The regulatory structure should arise naturally from the operations of the business and, to the extent possible, should not influence those operations.

139) To that end, the decision by the railroad to distribute dividends, and how much, should not take into account the impact on its regulatory capital structure. And yet, if there is such an impact, it would be naïve to expect the railroad to ignore it.

140) There are two mechanisms that may mitigate or entirely avoid the problem. Both of them rely on placing controls around the amount of dividends that are to be paid by the regulated railroad.

141) The first method takes as a premise that the dividends paid out at the parent entity level will be more or less independent of any impact on the regulatory capital structure. This assumption may be accepted based on the notion that investors will demand a certain minimum dividend payout ratio which, if not met, would lead to a reduction in the market value of equity and commensurate increase in the cost of equity. Since the equity returns earned via the regulatory cost of capital rate are a relatively minor portion of overall shareholder returns, it is likely that the premise is largely correct, though there may remain a minor residual effect.

142) If this premise is accepted, then the control on the regulated railroad's cash level is enacted by requiring that the regulated railroad to contribute to the total corporate dividend distribution in direct proportion to its annual earnings relative to the earnings of the whole corporation. It is worth noting here that this is the method currently used to allocate dividend contributions to the various CP entities.

143) If the premise is not accepted, then the alternative is that the CTA would annually review and test the reasonableness of the railroad's dividend payout, and prescribe a deemed payout if it is considered necessary.

144) In summary, it is CP's position that the intercompany financing adjustment has been, and continues to be central to the determination of CP's regulatory capital structure. It is primarily responsible for the capital structure as it exists today, and therefore it is critical that the method continue to operate in a manner that is logically sound and objective in nature.

145) The intercompany financing adjustment, as it has been applied both before and after the 2002 decision, was thoughtfully constructed by the commissions and tested over decades. The alternative is to return to a method where the capital structure is subjectively determined by examining individual debt items at the time that they are issued. It is counter to the interests of all stakeholders, and counter to regulatory precedent, to apply subjective methods when objective methods are available.

Summary of CP's Position on the Intercompany Financing Adjustment

146) CP submits that the intercompany financing adjustment as it is applied today, as a net adjustment of intercompany advances and cash against debentures, is an accurate, reasonable, and indeed necessary component of the regulatory capital structure for the purpose of determining the cost of capital.

147) The pre-2002 method, which depended on comparing cash from operations to cash used in dividends and capital programs, was also accurate and theoretically consistent. Although that method was more complicated, it is an acceptable alternative if the CTA should feel that the benefits of a more intuitively clear method outweigh the added complexity.

The Working Capital Allowance

148) As the CTA consultation document points out, working capital was defined in the 1985 Decision as "encompassing cash, and the materials and supplies required to support the railway's day to day operations." The 1985 Decision goes on to say that this definition was agreed upon by the Technical Committee (which included representatives from all of the major stakeholder groups: the railways, the transportation offices, the Pools, UGG, etc.). The CTA reiterates this definition, and CP will rely on it as well.

149) The issue of working capital and how it should be accounted for in the regulatory capital structure has been examined in previous decisions. One of the recurring issues is that "investor financed" working capital must be segregated from "supplier financed" working capital.

150) Supplier financed working capital consists of items such as materials held in Inventory for which the invoice amounts are still outstanding. It is common practice to allow a grace period for the settlement of invoices, after the goods or services have already been delivered. The cost of financing the grace period is implicit in the price charged for the goods. Therefore, the financing cost may be assumed to be reflected in the value of the inventory, and consequently in the cost-of-service as the inventory is consumed in the normal course of operations.

151) Since the railway is compensated for expenses incurred in normal operations via the rate-setting mechanisms, it would be double-counting to also provide a return on supplier financed working capital. This is why it is important to separate supplier financed working capital from investor financed working capital.

152) If the term "working capital allowance" (the "Allowance") is defined as the amount of working capital which should earn a return for cost of capital, then it follows that the Allowance should consist only of working capital for which the invoices have been paid. In other words, a given inventory item is considered to be supplier financed working capital until the invoice is paid. Once the invoice is paid, it becomes investor financed working capital, and it is then included in the Allowance.

153) Inclusion of investor financed working capital in the Allowance reflects the fact that the investor incurs a cost in providing the required financing. By including the Allowance in the capital structure, the working capital receives a return at the weighted average cost of capital, and the investor is made whole.

154) However, note that the cost to the investor does not disappear when the inventory item is consumed in the normal course of business. The financing cost persists until the time that the company is reimbursed for services provided, which may be some time after the date of service.

155) In determining the Allowance, then, it is necessary to determine the amount of time between the date that the company pays for materials and supplies, and the date that it is reimbursed for them in the course of providing service. Considering that a wide variety of materials are used in railway

operations, each with unique procurement cycles and payment terms, it becomes apparent that the matter of determining the appropriate working capital cllowance is not trivial.

156) Past decisions have relied on the use of lead-lag studies to determine the Allowance. The lead-lag study examines the timing of payments for materials procured, and compares these to the timing of reimbursement for services rendered. The difference is calculated on a dollar-weighted basis to determine the amount of investor financed working capital that is required, on average, to finance railroad operations.

157) The method is theoretically sound, but complicated, expensive, and time-consuming to implement. This is because it requires examining thousands of invoices, service contracts, freight movements, and other sources of indirect financing. This may be the primary reason that the current working capital allowance has not been updated since 1992.

158) CP appreciates that the CTA has decided to examine the working capital allowance in this consultation. The current figure was determined in 1992 – it is likely that the actual requirement has changed.

159) As to the appropriate method to determine a new Allowance, there are several options:

a. Update the 1992 figure by applying indexation;

b. Carry out a new lead lag study;

c. Apply an alternative method, based on accounting figures.

160) As the CTA notes in the Consultation document, the 1997 Decision provided that the 1992 working capital allowance should be used on a go-forward basis, applying annual indexation. However, CP's records indicate that no indexation has been applied to the working capital allowance, as it is used in CP's regulatory capital structure for cost of capital determinations, in quite a few years. Presumably, the Allowance should have been adjusted annually for inflation per the VRCPI. At a minimum, the Allowance should receive the appropriate inflation, per the VRCPI, between 1992 to today.

161) However, given that the current Allowance is based on a study that is nearly 25 years old, it should be possible to do better.

162) CP is willing to undertake an updated lead-lag study if, in the opinion of the CTA, this is the best way to determine an updated value for the working capital allowance. However, such a decision should consider whether this is the optimal method for the long term. There is no reason to presume that a lead-lag study is any less cumbersome today than it was in 1992. Therefore, a decision to rely on lead-lag studies to determine the working capital allowance may also, by extension, imply that the Allowance would continue to be updated very infrequently going forward.

163) In the 1985 Decision, the CTC notes that CP advocated a methodology that was based on balance-sheet accounts. At that time, CP was developing a separate ledger for the railway (as distinct from other CP operations). As a result, CP believed that it would be able to provide reliable figures for accounts that would determine a distinct working capital requirement for the railroad. The CTC gave consideration to CP's proposal, but was not able to implement it in time for the decision because test data was not yet available (see the 1985 Decision at page 43).

164) Today, CP has had separate ledgers in place for its various corporate entities for many years. The cost of capital balance sheet is developed each year based on the accounting ledgers of the CP entities that comprise the regulated railroad. Accounting entries that arise in the normal course of business are automatically coded to the appropriate entity. Where it is necessary to apply systematic reallocations between entities, these operations generally use tested and approved methods that are mechanistic in nature.

165) The accounting systems required to determine a separate working capital requirement for the regulated railroad are in place, and have proven themselves for many years. So a balance sheet based approach is now practical – it may be time to re-evaluate whether the approach is reasonable.

166) CP believes that a balance sheet based approach is reasonable. Recall that the intent of the lead-lag study is to determine how long the railroad must finance its materials and supplies, on average, until such time as that cost can be recovered via reimbursement for services rendered. In essence, the lead-lag study is a comparison of outstanding obligations to suppliers, the value of materials carried in inventory, and obligations due from customers.

167) One of the primary purposes of accounting systems is to accurately represent obligations and assets. Generally, accounting systems do a very good job of this, especially where the accounts are of a current, or short-term, nature. An accounting system will invariably include accounts to deal specifically with working capital items, namely: Accounts Payable, Materials, and Accounts Receivable. The question is whether or not the accounting system records those accounts in a way that is useful for the purposes of determining a working capital allowance.

168) In order to examine this question we may consider a simple example. Assume that the railroad orders a shipment of freight-car brake shoes for inventory, at a cost of $10,000. The brake shoes are purchased with net-30 payment terms, and the invoice may not arrive for several days after the shipment itself is received. But the accounting system will reflect the transaction on the day that the shipment is received. The Materials account will immediately be debited for $10,000, and Accounts Payable will be credited for $10,000. At this point, the brake shoes represent supplier financed working capital.

169) When the invoice is actually received, several days later, the billing information is entered and reconciled against the order. But there is no change to the account balances at that time. If the payment terms are net-30, then the invoice will generally be paid 30 days after the invoice date (the invoice date will generally match the date that the brake shoes were shipped). When the

invoice is paid, Accounts Payable will be debited $10,000, and Cash will be credited $10,000. This is the point when the brake shoes become investor financed working capital, and are thus included in the Allowance.

170) At some point, let us say two months after they are received, the brake shoes are placed into service and thus consumed in the normal course of business. They are removed from inventory and shown as a business expense: Materials are credited $10,000, and Freight Car Maintenance Expense is debited $10,000.

171) At this point the brake shoes are no longer explicitly carried in the railroad accounting system but, as discussed above, their acquisition cost is still being borne by the railroad. This cost is borne until the railroad is reimbursed for providing the services in which the brake shoes are consumed. Let us say that the service life of those brake shoes is ten thousand miles, on average, and that this represents five freight car round-trips, per brake shoe.

172) If these particular cars complete one round-trip cycle per month, then a brake shoe will be consumed entirely in five months. For the sake of simplicity, let us also assume that customers typically pay the freight invoice two weeks after the loaded car arrives at destination. Thus the payment typically coincides with the end of the round-trip cycle. In that case, the railroad will have been fully reimbursed for the brake shoes five months after having placed them in service.

173) However, because the cost of the brake shoes is part of the cost of each carload, the railroad will be partially reimbursed for the cost of the brake shoes with the payment for each carload. At first glance, the circumstances may seem to be complicated: how can we possibly determine how long it takes for the company to be fully reimbursed for each service component over its actual service life, and what is the resulting impact on the required working capital?

174) But in fact the situation may be simplified greatly by relying on averages. The railroad business is characterized by a constant movement of rail cars, and a constant flow of materials and supplies is consumed in those movements. The actual life of any given brake shoe, for example, may be impossible to record. But if, as in our example, a brake shoe must be replaced after five round trips then it may be said that, on average, one-fifth of a brake shoe is replaced after every round trip.

175) If the sample is large enough then, in a statistical sense, it is accurate to model the consumption of materials and supplies as a constant flow. In that case it is not necessary to model the consumption of each material item individually. Instead, we simply assume that the consumption of materials is distributed evenly over all carloads.

176) The actual expenses related to freight services are captured in the accounting system. All that is left is to determine how long, on average, those expenses represent investor financed working capital. This is simply a measure of the average length of time between the consumption of those materials in the service of customers, to the time that the customer pays for that service. That, in

turn, may be measured as the ratio of the railroad's Accounts Receivable to its total Freight Revenue.

177) For example if the value of Accounts Receivable is $10, on average, and total Freight Revenues are $260, then the ratio of Account Receivable to Freight Revenue is 1:26. This is equivalent to two weeks worth of freight revenue outstanding (2 weeks out of 52 is $1/26^{th}$). Therefore it may be said that the average collection period is 14 days. Thus, 14 day's worth of freight expenses are included in the Allowance.

178) In its simplest form, the working capital allowance may be calculated by the following equation:

$$Allowance = Materials - Accounts\ Payable + \left(Freight\ Expense\ \times \frac{Accounts\ Receivable}{Freight\ Revenue}\right)$$

Where:

Allowance	is the amount of working capital included in Net Rail Investment
Materials	is the amount of materials and supplies carried on the railroad balance sheet
Accounts Payable	is the amount outstanding to suppliers, carried on the railroad balance sheet
Freight Expense	is the total expense incurred in the carriage of Freight, per the railroad income statement
Accounts Receivable	is the amount outstanding from freight customers, carried on the railroad balance sheet
Freight Revenue	is the total amount of revenue earned in the carriage of Freight, per the income statement

179) This equation captures the value of materials which have been paid for but not used, as well as the value of materials that have been consumed, but for which the railroad has not yet been reimbursed. However, there are other factors to consider in the calculation of working capital:

a. Treatment of depreciation expenses;
b. Treatment of tax expenses;
c. Treatment of labour expenses;
d. Pre-paid taxes, paid by customers;
e. Accrued labor expenses;
f. Cash;
g. Pre-paid expenses;
h. Inter-company amounts.

180) Should depreciation expenses be included in the Freight Expense as employed in the Allowance calculation above? It may be argued that the depreciation expense should not be included, because it does not represent a true cash cost. However, the depreciation expense in this context is the best available representation of the consumption of capital assets in the service of freight. Depreciation reflects the steady progression of economic assets as they approach a state where they are no longer useful. Assets must be replaced as they depreciate. In that sense, depreciation is a reasonable estimate of the expense incurred through the consumption of capital assets.

181) Another point of objection may be that the railroad already receives explicit compensation for depreciation in the VRCPI, which is used to determine regulated freight rates. This argument is

based on a false premise. This is because the working capital allowance is used to calculate the cost incurred by the railroad for financing certain business expenses from the time that they are incurred, until such time as it is reimbursed for those expenses through the payment of freight rates. Inclusion of the depreciation expense in the Allowance calculation is a reflection of that temporary financing cost. It does not reflect a recovery of the depreciation expense itself.

182) The treatment of tax expenses in the calculation follows the same line of reasoning as that regarding depreciation. That is, inclusion of the tax expense in the Allowance calculation provides for recovery of the temporary financing costs related to the payment of those taxes. The actual cost of the tax expense itself is provided for elsewhere.

183) Labour expenses are mentioned here explicitly only because the discussion up to now has focused on the cost of materials and supplies. This was done for the sake of simplicity, and not because the nature of labour expense is fundamentally different. Labour expenses are a cost incurred in normal freight operations, just as material and supply costs are. Where labor costs are incurred in the service of freight operations, they should be reflected in both the Freight Expenses and Accounts Payable accounts as they are employed in the Allowance calculation.

184) Pre-paid taxes are amounts related to sales taxes, carbon taxes, and similar items which are collected by the railroad on freight invoices, and remitted to the relevant government agencies periodically. To the extent that these amounts represent cash that has been collected, but not yet remitted, it represents available working capital.

185) Accrued labor expenses are payroll related expenses that are outstanding to employees. These represent a source of working capital because, if labor expenses were paid as they are incurred, this would imply that extra cash would need to be made available to meet that requirement. Since labour expenses are not paid immediately as they are incurred, the working capital requirement is reduced.

186) With regards to cash, please note that the discussion of cash in the current context ignores the preceding discussion of the intercompany financing adjustment. It is assumed that, if the intercompany financing adjustment is maintained, then the Cash balance for the purpose of the working capital adjustment will be zero (because it will have already have been applied as an offset to debentures).

187) If there is a non-zero cash balance, it should not be included in the calculation of the Allowance. This is because the Allowance is, in essence, a determination of the amount of cash that is required to finance the day-to-day operations of the railroad. The actual cash on the balance sheet is not germane to that calculation.

188) However, on the principal that the day-to-day cash requirements of the business are not uniformly smooth, and are not without a certain degree of risk, a cash buffer should be included in the current assets. A reasonable method for assessing the cash buffer requirement might examine the month-to-month variability in the Accounts Payable balance.

189) Pre-paid expenses are current assets created by paying for expenses before they are incurred. Clearly, these represent a use of working capital, and should be included when calculating the Allowance.

190) Inter-company receivables and payables are amounts outstanding between the CP railroad and other CP operations, incurred in normal freight operations. These amounts should not be included in the calculation of the Allowance, because they are non-arm's-length transactions. Since the company could arbitrarily decide to settle these accounts more or less frequently, the net balance may not reflect real financing needs.

191) In principle, all freight related business expenses and freight related accounts payable and receivable should be represented in the Allowance calculation. The actual Cash balance should not be included, but a reasonable cash buffer should be included. Inter-company amounts should not be included.

192) The Allowance calculation could rely on year-end values, or on averages taken throughout the year. John Bauer discusses the relative merits of each approach (*The Allowance for Working Capital in a Rate Case, Political Science Quarterly, Vol. 31, No. 3 (Sep., 1916), pp. 413-429*). CP would like to express its preference for using year-end balances in the interest of avoiding undue complexity.

Summary of CP's Position on the Working Capital Allowance

193) CP submits that the working capital allowance is a required component of the net rail investment.

194) Furthermore, a calculation method relying on railroad accounts is practical and reasonable, and it would allow for annual updating of the allowance for working capital.

Responses to the Consultation Questions

195) This section provides direct response to each question posed in the Consultation document. The responses rely on the arguments and evidence developed in the body of the paper.

Consultation Question 1: Does the proposed Balance Sheet Approach list of items adequately include all appropriate elements that the Agency should take into consideration in determining the prescribed railway companies' capital structure, and if not, what components should be included or excluded, based on what elements of GAAP?

- CP submits that the Net Rail Investment must include the market value of land, estimated on a reasonable basis. The reasoning underlying this submission is outlined above in paragraphs 1 through 74.

- CP submits that the capital structure should be adjusted to reflect intercompany financing, as it has been since 1973. The reasoning underlying this submission is outlined above in paragraphs 75 through 147.

Consultation Question 2: The working capital allowances in CN and CP's capital structure were determined in 1992 and maintained to date. Is there a need for a working capital allowance adjustment in today's railway operating environment?

- CP submits that, to the extent that working capital reflects investor financed capital, an allowance within the net rail investment for the amount of that investment is as valid today as always. Inclusion of investor financed working capital in the net rail investment reflects the fact that the investor incurs a cost in providing the required financing.

Consultation Question 3: If yes, what methodology would be appropriate for determining the amount of the required working capital allowance?

- CP submits that the preferred method is one that is based on UCA accounts. This would permit annual updates without incurring an undue cost. However, CP does not rule out an updated lead-lag study, or continued indexation of the current allowance, as viable options.

Consultation Question 4: How would the methodology proposed in 3) distinguish investor-supplied cash versus supplier-financed cash, with specific reference to the interrelationship between cash, inventory, and accounts payable?

- CP submits that the working capital allowance should not include supplier-financed working capital. CP has described a method, using UCA account balances, which distinguishes between supplier-financed working capital and investor-financed working capital. The fundamental principle is that there should be a return to the company for carrying the cost of materials and other operating expenses from the time that they are paid-for by the company, until such time as the company is reimbursed for providing the service that incurs those expenses.

Consultation Question 5: How often should the working capital allowance be updated?

- CP submits that, if the proposed UCA based method is adopted, then the working capital allowance should be updated annually. If the lead-lag study continues to be used, then a cost benefit analysis should be done, with regards to determining an optimal update frequency.

- The reasoning underlying CP'S submitted responses to questions 2, 3, 4, and 5 are outlined above in paragraphs 148 through 194.

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