



## TABLE OF CONTENTS

	<u>Page</u>
I. INTRODUCTION AND SUMMARY .....	1
II. DEFICIENT ASSUMPTIONS IN THE AAR MSDCF PROPOSAL .....	5
a. The Second Stage Growth Rate .....	5
b. The Terminal Growth Rate .....	11
c. The Measure of Cash Flow .....	12
d. The Derivation of the Five-Year Growth Rates .....	17
III. OTHER DEFICIENCIES IN THE STB's PROPOSED MSDCF APPROACH .	18
a. STB Excessive Focus on Independence .....	19
b. STB Excessive Focus on Standard Deviation .....	21
c. STB Failure to Focus on Accuracy of the COE Results .....	23
IV. A SOUND MSDCF SHOULD MORE ACCURATELY ESTIMATE THE COC .....	25
V. APPROPRIATE NEXT STEPS .....	27
VI. CONCLUSION .....	28

BEFORE THE  
SURFACE TRANSPORTATION BOARD

---

In the Matter of:	)	
	)	
	)	
USE OF A MULTI-STAGE	)	STB Ex Parte No. 664 (Sub-No. 1)
DISCOUNTED CASH FLOW	)	
METHODOLOGY IN DETERMINING	)	
THE RAILROAD INDUSTRY'S COST	)	
OF CAPITAL	)	
	)	

---

**OPENING COMMENTS OF THE WESTERN COAL TRAFFIC LEAGUE**

The Western Coal Traffic League (“WCTL” or “League”)<sup>1</sup> hereby submits its opening comments in response to the Notice of Proposed Rulemaking (“NPR” or “Notice”) that the Surface Transportation Board (“STB” or “Board”) served in this proceeding on August 11, 2008.

**I. INTRODUCTION AND SUMMARY**

As indicated by the STB’s NPR, use of a Multi-Stage Discounted Cash Flow model (“MSDCF”) in conjunction with the Capital Asset Pricing Model (“CAPM”)

---

<sup>1</sup>WCTL is a voluntary association, whose regular membership consists entirely of utility shippers of coal mined west of the Mississippi River that is transported by rail. WCTL members presently ship and receive in excess of 140 million tons of coal by rail each year. WCTL’s members are: Alliant Energy; Ameren Energy Fuels and Services; Arizona Electric Power Cooperative, Inc.; CLECO Corporation; Austin Energy (City of Austin, Texas); CPS Energy; Kansas City Power & Light Company; Lower Colorado River Authority; MidAmerican Energy Company; Minnesota Power; Nebraska Public Power District; Omaha Public Power District; Texas Municipal Power Agency; Western Farmers Electric Cooperative; Western Fuels Association, Inc.; Wisconsin Public Service Corporation; and Xcel Energy.

to calculate the cost of equity (“COE”) portion of the railroad industry cost of capital (“COC”) has, in theory, the potential to result in a more accurate estimate than the use of CAPM alone.

But in order for a model to yield accurate results, it must be implemented in a sound and appropriate manner, as improper implementation of an otherwise sound model or theory can result in reduced accuracy and create systematic bias. The MSDCF model proposed in the STB’s NPR appears to suffer from this deficiency in a number of respects such as the choice of the growth rate for the second phase, the terminal growth rate, and the definition of cash flow, as explained more fully *infra*. Moreover, the underlying assumptions and inputs do not reflect the realities of the railroad industry. The choice and definition of inputs are of vital importance, yet they receive little or no consideration in the STB’s NPR.

Indeed, in a number of important respects, the NPR does not really state or explain what the STB is actually proposing for adoption. Furthermore, it is unclear if the model being proposed is that actually utilized by Ibbotson or is instead a variant of the Ibbotson model as modified by the Association of American Railroads (“AAR”). The NPR’s Appendix presents an algebraic formula for a model, but many of the key variables, such as the measure of cash flow and the growth rate to be used in the third stage, are not defined in the Appendix, nor are they defined in the text of the NPR. Out of caution, WCTL has assumed for purposes of these comments that the STB intends to

adopt the claims and representations (some of which are entirely vague) made by the AAR in its comments (and the AAR's associated workpapers, which are not posted on the STB's website) in response to the STB's Advance Notice of Proposed Rulemaking ("ANPR") in this proceeding concerning the inputs to be utilized, but that does not discharge the agency's duty to present an actual proposal in its NPR. The public should not be reduced to engaging in a "guessing game" as to what an agency is actually proposing in a notice of proposed rulemaking. The NPR's deficiencies in this regard prevent the STB from adopting its MSDCF proposal (whatever it actually is) at this time.

WCTL notes that in response to the STB's earlier ANPR in this proceeding, WCTL submitted not one, but two models that illustrate how MSDCF principles can be implemented in a reasonable and superior manner, particularly in the choice of inputs. Each of the WCTL models yields a more plausible and accurate estimate of the railroad industry COC when measured against both the STB's CAPM results and estimates of the railroad COC relied upon by the financial community. The STB appears to have rejected WCTL's models not because of any determination that the AAR's model was superior on the merits, but because WCTL's models appear to have been "developed simply as a tool for litigation for the Board"( NPR at 6) -- as if the AAR proposed its variant of the Ibbotson 3-stage DCF model without regard for the fact that it delivers significantly higher results than under the STB's CAPM methodology. If the STB wishes to adopt a sound MSDCF methodology, WCTL urges the agency to give

meaningful consideration to the type of approach embodied in WCTL's models and especially the choices of inputs and implementation.

WCTL is especially concerned that the NPR prefers the AAR model over the type of approach proposed by WCTL's experts without any apparent regard for whether the results are accurate or will improve accuracy when used in conjunction with CAPM. Instead, the STB's basis of selection appears to be that (a) the Ibbotson approach was developed commercially, and (b) it results in a lower standard deviation when combined with CAPM. However, there is no evidence that the Ibbotson approach is commercially relied upon by the financial community with respect to the railroad industry. In contrast, there is ample evidence both that the AAR MSDCF COE is overstated and that the WCTL MSDCF figures are more accurate when compared to standard estimates of the railroad industry COC prepared by the financial community. Furthermore, the STB's observation that combining CAPM and MSDCF results in a smoother line over time does not establish that the resulting figure is any more accurate.

Accordingly, there is no adequate basis for adopting the MSDCF proposal in the STB's NPR at this time. If the STB is interested in a MSDCF model that would produce a more accurate estimate of the COC, then it should give further consideration to WCTL's prior proposals, or their key features, as explained in WCTL's more detailed comments that follow. Alternatively, the STB should rely exclusively on CAPM, at least

until the STB has more experience with the methodology or there is some reason to believe that it is not yielding accurate results.

## II. DEFICIENT ASSUMPTIONS IN THE AAR MSDCF PROPOSAL

Like any model, the AAR MSDCF proposal rests on a series of key assumptions. If these assumptions are inaccurate or incomplete, the model is unlikely to provide reliable results, especially over time.

As shown below, the AAR MSDCF proposal makes a number of key assumptions that are unwarranted, especially when compared to those utilized in WCTL's proposed MSDCF models.

### A. The Second Stage Growth Rate

The most conspicuous difference between the AAR MSDCF model and those presented by WCTL is in the growth rate for the second stage (years six through ten). WCTL suggested a gradual transition or phase-in of the difference between the growth rate for the first stage (years one through five) and the third or final state (year eleven). In contrast, the AAR proposes that the second stage reflect the sample-wide average of the growth rate for the first five years. Since the sample consists of only four firms, and since the average growth rate of the firms does not vary widely,<sup>2</sup> the AAR proposal -- which the STB appears to have accepted without any real analysis -- assumes

---

<sup>2</sup>AAR witness Stangle in his Verified Statement ("Stangle") shows 2006 median projected growth rates for the four Class I railroads are very tightly bunched, *e.g.*, a low of 14.0% (UP) and a high of 17.2% (CSX). Stangle at 5.

that the forecasted five-year growth rate for the industry as a whole will continue for ten years.

Neither the AAR nor the STB has presented any evidence that five-year forecasts of earnings growth are likely to be accurate for ten years or, for that matter, even five years. Indeed, some academic work has indicated that growth cannot be accurately predicted beyond a year. *See, e.g.,* Eugene F. Fama and Kenneth R. French. *The Equity Risk Premium*, 57 J. of Finance 637, 650 (April 2002) (“power to forecast dividend growth does not extend much beyond a year.” and “we can report that extending the forecast horizon from two to three years causes all hint of forecast power to disappear”).<sup>3</sup> Additionally there is abundant documentation that analysts forecasts are subject to an optimism bias, a problem that is compounded by having the forecasts for the first five years govern for the second five years of the model. The AAR proposal essentially takes a questionable five-year projection and assumes that it will hold true for ten years, twice as long as it was ever intended to do so by those making the forecasts. This approach is highly implausible on its face.

Additionally, the Ibbotson S&P Valuation Edition Yearbook describes the first stage as reflecting any “extraordinary near-term growth potential and the second stage as growth in the industry.” The Ibbotson language indicates that the growth rate of

---

<sup>3</sup>The Fama-French discussion relates to dividend growth, but dividends have the virtue of being relatively stable compared to other measures of cash flow, as explained in WCTL’s comments in response to the ANPR and as further demonstrated *infra*.

the industry is not the same thing as growth rate of the companies, but this distinction is obliterated under the AAR's proposed alteration of the Ibbotson model.<sup>4</sup>

Moreover, the Ibbotson/AAR approach assumes that earnings growth will instantaneously revert to the growth rate for the general economy in the eleventh year. In contrast, WCTL's two suggested models project a gradual five-year transition to the terminal growth rate starting in year six. The WCTL models thus give full recognition to what are, as explained *infra*, the very aggressive assumptions embodied in the current five-year projections for the railroad industry, but they reflect the sort of gradual transition that one would expect to occur. The WCTL models are thus far more logical and appropriate on their face.

Furthermore, there is nothing to suggest that the Ibbotson methodology was developed for, or has been tested for reasonableness against, the railroad industry specifically. Instead, it would appear that the Ibbotson intent was to develop a very general methodology that could be applied across the various sectors of the markets on a standard or neutral basis. There may be value in having such a methodology as a crude rule of thumb, but nothing guarantees that it will produce accurate results in any specific application, especially when an industry or sector has unusual aspects such as the railroad

---

<sup>4</sup>The Ibbotson published data includes additional firms within the industry that, as noted *infra*, may serve to make the industry average more reasonable.

industry. Stangle at 6 acknowledges as much in stating that “in theory it may be possible to build a model that is more tailored to the specifics of the railroad industry.”

There may well be circumstances where the Ibbotson/AAR assumptions might be realistic. In particular, one might have more confidence if the growth rate for an established and stable industry or sector, such as large railroads, was close to that of the economy as a whole.<sup>5</sup> Conversely, if one wanted to imagine an industry or sector that should be expected to experience above normal growth for an extended period such as ten years, it would be a relatively new and/or small industry that would be in a position to experience sustained volume growth far in excess of that of the general economy.

The instant situation, however, is one where a long-established, quite stable industry is being projected to have its earnings grow at over triple the expected long-term growth rate of the general economy. While such an assumption might, perhaps, be somewhat plausible or permissible for a period as long as five years, it is difficult to imagine that it would apply for ten years (double the period covered by the underlying projections themselves) before suddenly reverting to the general growth rate for the

---

<sup>5</sup>The Ibbotson published data for the railroad industry includes additional firms, presumably with diversity in terms of size and growth characteristics. In contrast, the growth rates for the four sampled Class I railroads are tightly bunched, as noted *supra*. It may thus be the case that the Ibbotson 3-stage MSDCF methodology yields a tempered and sustainable result for the railroad industry as published, even if that methodology does not when applied just to the four largest domestic railroads. In any event, neither the AAR nor the STB has presented any evidence that anyone actually relies on the particular calculation or results proposed for adoption in the NPR.

economy, especially when the industry's volumes are not expected to grow as fast as the general economy.<sup>6</sup>

Moreover, the growth rates at issue have been and appear to be near or in the range of 14-15% (15.3% according to Stangle at 5). Accordingly, the growth assumption is that railroad cash flow will double in the first five years and, therefore, quadruple in the ten-year period covered by the first two stages of the model.<sup>7</sup> This assumption, especially in what is still generally considered to be a relatively low inflation environment, ought to give one pause, but there is no suggestion in the NPR that it was given even a moment's consideration. Furthermore, the growth appears to be driven primarily by price and not by volume (which, as noted, is projected to lag the general economy) or productivity (which has been very modest in recent years).

The result is that the methodology derives an increased cost of capital due simply to the fact that the railroads are able to impose (and are projected to be able to continue imposing) enormous rate increases. The ability to impose such rate increases should make the railroad industry less risky, not more risky, and it should thus lower, not increase, the railroad industry cost of capital. In this instance, the methodology simply

---

<sup>6</sup>WCTL has previously noted in other filings that even the study done for the AAR by Cambridge Systematics, Inc., predicts that railroad traffic will grow less than the general economy.

<sup>7</sup>An annual 15.3% growth rates implies that earnings (and thus also cash flow, under the AAR model) will double approximately every 4.9 years ( $1.153^{4.9} = 2.01$ ).

does not function in a sound manner, which is a reason to rely on a methodology, such as CAPM, that utilizes different inputs.

As noted, the AAR, and with it the NPR, are essentially positing that railroad earnings will, largely as a result of increasing rates, nearly double in the first five years and then double again in the next five years. This assumption is an extremely aggressive one and is being undertaken for purposes largely having to do with rate regulation. The exercise thus involves a measure of a fatal circularity, that is, regulating rates by assuming what they will be. The STB's answer to this problem in the past has been largely to assert that most rates are not regulated, but this response fails in two respects. First, the circularity includes determining what rates are subject to regulation in the first place (since the COC is an input in determining the jurisdictional threshold). Second, the STB is, at best, determining that rates on regulated traffic should be allowed to increase because rates on unregulated traffic are increasing, which is entirely counterintuitive.

In short, the NPR proposal adopts a highly suspect AAR assumption and does so without any apparent review or analysis. The STB should not adopt its MSDCF proposal for this reason alone. If the STB wishes to redress this extreme deficiency, it should do so by adopting a more reasoned and balanced second stage growth rate such as that previously proposed by WCTL for the reasons noted above.

B. The Terminal Growth Rate

Another important assumption in a MSDCF model is what one uses for the terminal growth rate, but this matter, too, receives no analysis or attention in the STB's NPR.

Stangle states that the analysis uses the average annual percentage change in real GDP from 1930 to the specific year under consideration and an estimated long-run expected inflation rate reflecting "the median ten-year-ahead inflation forecast from the Survey of Professional Forecasters conducted by the Federal Reserve Bank of Philadelphia." Stangle at 5 n.9. It is entirely unclear whether this choice, as well as a number of others, was that of Morningstar/Ibbotson or Stangle himself.<sup>8</sup>

In any event, the resulting terminal growth rate figure of 6.0% is on the high side, particularly as contrasted with general growth figures previously proposed by the STB and even the AAR. Furthermore, if the point of that part of the model is to measure the future growth rate of the general economy starting ten years out, one would not want to rely on average real growth for a historical period of over seventy years that encompasses the recovery from the Depression.<sup>9</sup> Similarly, to measure inflation starting eleven years out, one logically would not utilize a projection of inflation over the next ten

---

<sup>8</sup>WCTL understands that the Ibbotson SBBI states that the inflation estimate reflects the difference between T-Bonds and TIPS.

<sup>9</sup>Stangle at 4 claims that "[t]he three-stage DCF model is fundamentally a forward-looking model." The STB's decision to use a very long-term historic measure for the equity or market risk premium under CAPM creates similar problems, as noted *infra*.

years, that is, a period of time to which the terminal growth rate does not even apply under the Ibbotson model.

In contrast, a better approach is reply on a very long-term estimate of long-term future growth, such as the projection of the trustees for the Social Security Administration. <http://www.ssa.gov/OACT/TR/TR08/trTOC.html>. The STB relied on an earlier version of this report when looking at an MSDCF approach last year, and WCTL also relied upon the later version of the report in comments on the ANPR filed five months ago. The trustee reports estimate a compound average growth rate for GDP of 4.6% through 2085. The Ibbotson or Stangle terminal growth rate assumption is then 30% higher than that used by the Social Security Administration trustees. A more realistic figure, such as those of the trustees, should be utilized for the terminal growth rate.

C. The Measure of Cash Flow

Stangle at 3-4 claims that the Ibbotson model defines cash flows as income before extraordinary items minus capital expenditures plus depreciation and deferred taxes. The NPR at 5 claims (relying on the AAR's representations) that the model "accounts for all of the relevant cash flows a reasonable investor is likely to anticipate, including share repurchases and earnings' reinvestments to obtain greater future cash flows, along with dividends" and "includes the impact of capital expenditures on a firm's cash flow."

The NPR's analysis is simplistic in several respects. First, the AAR's model does not appear to take into account cash inflows associated with the exercise of stock options, which in some cases have been as large as, or greater than, the dividends paid by railroads.<sup>10</sup> WCTL notes that one of its two models addressed this issue explicitly by utilizing a narrow measure of cash flowing directly to stockholders, but considered the exercise of stock options as well as stock dividends and share repurchases.

Otherwise, the AAR model does not address share repurchases and the like explicitly, but instead defines cash flow as income in terms of adjustments to income before extraordinary items.<sup>11</sup> While the AAR includes standard adjustments for capital expenditures, depreciation, and deferred taxes, the AAR (and the STB) omits any mention of the fact that cash flow is typically defined to include an adjustment for changes in working capital.<sup>12</sup>

---

<sup>10</sup>WCTL assumes that the analysts make some effort to take into account the exercise of stock options in projecting the growth in earnings per share. To exclude inflows associated with the exercise of stock options then creates a potential mismatch.

<sup>11</sup>The issue of the exclusion of extraordinary items may warrant some attention, particularly to the extent some extraordinary items may be included for assessing revenue adequacy.

<sup>12</sup>WCTL's second MSDCF model utilized a broader measure of cash flow, free cash flow to equity, that reflects not only the matters considered by the Ibbotson or AAR model, but also amortization and net new debt as well as changes in working capital. Again, WCTL disputes the NPR's assumption that the AAR model "accounts for all of the relevant cash flows a reasonable investor is likely to anticipate." The NPR's unqualified claim suggests that WCTL's proposals did not receive full consideration.

Now, the explanation for the somewhat conspicuous omission of changes in working capital may be that Ibbotson generally assumes that working capital will be relatively stable and/or minor. That assumption may (or may not) be sound as a general matter, but changes in operating capital for the railroads have been significant.<sup>13</sup> Furthermore, one would expect that an industry with a high and growing level of capital expenditures would also face growing demands for working capital. The railroads are quick to note, at least in other contexts, that their industry is the most capital intensive (which they define as capital expenditures relative to revenues). Accordingly, the omission of any treatment of working capital, and any explanation for that omission, constitutes a significant deficiency in the AAR model and the NPR.

Moreover, when the Ibbotson/AAR model reaches the terminal stage, cash flow is defined simply as income before extraordinary items, meaning that depreciation, capital expenditures, and deferred taxes (as well as any other adjustments) simply disappear (or, alternatively, capital expenditures are deemed to equal depreciation).

---

<sup>13</sup>For example, the workpapers submitted by WCTL for its MSDCF ANPR filing showed that NS had a \$905 million increase in working capital for 2005, but a \$483 million decrease in working capital for 2006. These figures far exceed, for example, the dividends that NS paid in those years. The 2005 figure is actually larger than NS's depreciation for that year.

Changes in net debt also should not be ignored, especially to the extent that cash flows to stockholders (dividends and buybacks) are being financed by additional debt.

Stangle at 6.<sup>14</sup> This is an extraordinary assumption, and it undoubtedly greatly simplifies Ibbotson's calculations. However, the fact of the matter is that the NPR's claims about how its proposal provides a broad and inclusive measure of cash flows is true (if at all, as explained at nn.12-14, *supra*) only for the first ten years of the model, and thereafter it is simply a projection of income based on the growth for the general economy (which is overstated, as explained *supra*). The NPR's silence as to such a matter suggests that the STB may not understand the details of its own proposal or how it differs from what WCTL proposed. Again, WCTL suggests that the definitions of cash flow presented in its models merit meaningful consideration.

The AAR claim that depreciation will exactly offset capital expenditures after ten years is especially glaring. Elsewhere (as in the Cambridge Systematics study noted *supra*), the AAR and its member railroads are claiming that they will need to make enormous capital expenditures over the next thirty (not ten<sup>15</sup>) years to handle projected growth in traffic over that time (even though the traffic is projected to grow at a rate slower than that of the general economy) and are claiming that they need to charge ever higher rates and require additional tax credits and other incentives in order to fund those

---

<sup>14</sup>The AAR model does not make separate projections of income, capital expenditures, depreciation, and deferred taxes. Instead, the model appears to take the aggregate average of those items for the past five years (Stangle at 6) and then apply the five-year average growth rate for the first ten years of the model. There is thus no effort to project actual capital expenditures for even a single year into the future.

<sup>15</sup>The AAR has elsewhere given no reason to think that the need for growing capital expenditures would end even after thirty years.

capital expenditures.<sup>16</sup> However, when it comes to the railroad industry COC, the railroads maintain that those capital expenditures will be fully funded by depreciation on their past investments after only ten years. There is a major inconsistency in the AAR's position in these two contexts.

The same inconsistency is also present in the AAR's pending petition in Ex Parte No. 679 for the STB to institute a rulemaking to consider using replacement costs in determining revenue adequacy. If depreciation were equal to capital expenditures, it would signify that the regular recovery associated with past investment would equal the amount needed for new investments and that assets were being retired (in terms of dollars) exactly as they were being replaced or renewed. Under such circumstances, there would be no financial impact associated with changing from the use of historical costs to replacement costs for purposes of determining revenue adequacy. Indeed, if the industry were earning enough to cover operating expenses, capital expenditures, and its cost of capital, the industry would appear to be revenue adequate by definition.

However, the AAR's position is that it needs to earn more to cover its ever growing capital expenditures, as demonstrated by the substantial effort that it devoted to

---

<sup>16</sup>Exhibit C of WCTL's filing on the ANPR showed that railroad expenditures as a percentage of revenues for 2002-2006 failed to keep up with the 1995-2006 average. The implications are then that (a) cash flow is actually overstated for the 2002-2006 period, and/or (b) the railroads will need to increase their cash expenditures in the future, particularly in order to grow their volumes (a matter that also bears on what terminal growth rate the industry can reasonably be expected to achieve). However, these matters are ignored in the AAR/Ibbotson estimate of the 2006 COE.

its replacement cost rulemaking petition.<sup>17</sup> Moreover, review of the railroads' financials demonstrates that their capital expenditures are, and have been, substantially more than their depreciation, and there is little reason to think that trend will fail to continue for considerably longer than the next ten years, especially considering the railroads' projected capital expenditures. Accordingly, the AAR position on the cost of capital methodology cannot be reconciled with its replacement cost rulemaking petition, which is an additional reason not to adopt the AAR's MSDCF model.

D. The Derivation of the Five-Year Growth Rates

Another problematic aspect of the AAR methodology is the derivation of the growth rate for the first five years of the MSDCF model.<sup>18</sup> It appears that the AAR and STB propose to take the figures from the Ibbotson publication(s), without any additional review or scrutiny.

WCTL submits that the better approach would be a continuation of the process that the STB utilized with its prior single-stage discounted cash flow ("SSDCF") methodology. In particular, the STB used a truncated average (excluded the highest and lowest estimates for each carrier in each month) in order to improve accuracy. Moreover,

---

<sup>17</sup>WCTL's comments should not be taken as any sort of endorsement of the AAR's petition on replacement costs, which WCTL has opposed.

<sup>18</sup>Actually, it is not clear that Ibbotson necessarily uses only five-year forecasts. Stangle at 4 n.8 suggests that forecasts of three to five years may be utilized, which is an additional reason to utilize an approach that provides for greater transparency.

the submission of the raw forecast data (albeit in slightly aggregated form<sup>19</sup>) provided some transparency in terms of the quality of the data.

Furthermore, some quality issues have arisen regarding the forecasts in recent years. In particular, there were often very sharp disparities between the estimates, which is relevant for assessing the range of the forecasts. In addition, there were at times relatively few estimates for a given carrier in a given month, *e.g.*, sometimes there were only three estimates, which meant that a single estimate governed after the high and low were excluded through the truncation process. This information is useful for assessing the reliability of the forecasts and how much weight to assign to the MSDCF analysis (assuming the MSDCF analysis is used at all), and it should not be excluded.

### III. OTHER DEFICIENCIES IN THE STB'S PROPOSED MSDCF APPROACH

As shown above, there are severe deficiencies in the particular MSDCF methodology that the AAR chose to submit in its comments and that the STB chose to propose in its NPR. In its NPR, the STB appears to contend that there are offsetting virtues to the Ibbotson or AAR model, *i.e.*, its independence and the fact that it yields a lower standard deviation when combined with CAPM. As explained below, these explanations are unavailing, especially as the AAR MSDCF methodology yields COE

---

<sup>19</sup>There is some uncertainty as to whether the aggregation was done by I/B/E/S or by the AAR.

values that exceed not only those under CAPM, but those generally utilized by the financial community for the railroad industry.

A. STB Excessive Focus on Independence

The STB's NPR attempts to justify the proposal of the Ibbotson model on the grounds that it was "developed by disinterested, respected third parties and created for use by the financial community" and "was not developed simply as a tool for litigation before the Board, but" has instead "been tested in the marketplace and is used to estimate the cost of equity for different industries, not just the rail industry." NPR at 5, 6.

That may be all fine and good, but there has been no demonstration that anyone actually considers the Ibbotson model to be a reliable measure of the cost of capital for the railroad industry specifically or different industries generally. Indeed, all indications are that it is a rather crude methodology that rests on a number of simplifying assumptions that do not take into account the specifics of the railroad industry (or any other industry for that matter) so that it can be easily applied. The Ibbotson figures may be a starting point, but there is no basis to conclude that they constitute anything more than that, and neither the STB nor the AAR has presented any actual evidence to the contrary. Under the circumstances, no meaningful weight can be assigned to the methodology or its results with respect to the railroad industry.

Moreover, the STB's sudden focus on a methodology or figure that it can apply "off the shelf" stands in sharp juxtaposition to its extended efforts to develop its

own implementation of the CAPM methodology (and even its own SSDCF methodology many years before that). The STB is not free to say it will choose one approach in one instance and a very different approach in another instance without providing some explanation for providing why the choice is appropriate in the first instance, but not in the second instance.

Indeed, construction of a MSDCF methodology appears to be substantially less technical or complicated than construction of a CAPM methodology, which would seem to be a reason for the STB not to adopt some off the shelf approach for the MSDCF. Alternatively, it may reflect some (implicit) recognition on the STB's part that there is not precise guidance as to exactly how to construct a MSDCF model. However, if that is the case, and since the choice of implementation bears substantially on the results of the MSDCF model (at least in this instance), then the more appropriate approach would be to not utilize a MSDCF analysis, or at least not in the way contemplated by the NPR, as explained more fully below. Another alternative would be to make an informed judgment about what set of assumptions and implementation best fits the specific particulars of the railroad industry, which would lead one to utilize the sort of approach embodied in the proposals that WCTL submitted in response to the ANPR.

In that regard, it appears appropriate to note that the STB previously rejected use of what amounts to a MSDCF model used by the Federal Energy Regulatory Commission ("FERC") for determining the COE of gas pipelines that reflected an

average growth rate reflecting (a) two-thirds of the growth rate for the proxy group and (b) one-third of the growth rate for the general economy, on the grounds that it was arbitrary. Yet, here, the STB appears to propose adopting another simplistic model without explaining what makes this particular model's assumptions more realistic. The fact that the Ibbotson model is independently constructed would seem just as applicable to the FERC model, and it is incumbent upon the STB to provide a meaningful explanation for why it has now proposed to take the opposite approach of what it did before.

WCTL's concern should not be mistaken as support for the FERC model. WCTL has not advocated the FERC model and, indeed, WCTL is concerned that the FERC model suffers from similar faults as the Ibbotson model, further amplifying the need for the STB to explain how an approach that was objectionable before has somehow now become not only acceptable, but actually preferable.

**B. STB Excessive Focus on Standard Deviation**

Perhaps recognizing that use of the Ibbotson-type approach cannot be defended on its individual merits, the STB claims in its NPR that combining the Ibbotson results with those under CAPM "enhances the precision of the resulting cost-of-equity estimate" by producing a "lower variance [0.75 instead of 0.92] than a forecast relying on the CAPM alone." NPR at 5. It appears that the STB's guiding principle may be that one sort-of right (CAPM, albeit with an overstated historical market risk premium) and a

wrong (the Ibbotson or AAR version of the MSDCF) somehow produces more of a right, or less of a wrong, than CAPM alone in the form of a lower standard deviation.

Lower standard deviations are a good thing, but a reduced standard deviation and implied greater stability over time should not be confused with increased substantive accuracy. Indeed, the standard deviation would presumably have been increased if the CAPM results had been averaged with a COE value that remained flat over time.<sup>20</sup> Moreover, there is no indication that the STB ever made any similar test for the results of the WCTL MSDCF models, again suggesting that the STB has not given full and fair consideration to WCTL's submission.

In addition, it appears that the Stangle figures rest on an average of five-years of historical cash flows. *See, e.g.*, Stangle at 4. Again, it is unclear if five years is the averaging period that is consistently employed by Ibbotson, or whether it is the averaging period utilized by Stangle for this particular purpose. In any event, use of some averaging period appears useful to account for the substantial variability in annual cash flows, as WCTL explained in its ANPR comments.<sup>21</sup> The extreme variability ought to

---

<sup>20</sup>The point is not meant to be purely rhetorical. As WCTL has previously noted, UBS has utilized (and continues to utilize) a flat 9.5% for the railroad industry weighted average cost of capital and claimed that it represents a consensus value. As explained *infra*, the UBS figure is worth considering as it at least purports to depict what the financial community considers to be the railroad industry cost of capital, something that cannot be said for the results of the Ibbotson/AAR MSDCF model.

<sup>21</sup>For example, using the BNSF data shown on Stangle at 4, BNSF's yield ratio was 4.7% in 2004, but nearly double (8.2%) in the next year (\$513 million divided by \$10,946 million, and \$1,073 million divided by \$12,987 million). Indeed, cash flow more

give one pause as to the extent such broad measures of cash flows should be used to calculate the cost of capital in the first place. In any event, when using an averaging period as long as five years, which years are actually being compared becomes less than clear. For example, the AAR and STB purport to compare the 2006 MSDCF and CAPM figures, but the Stangle 2006 MSDCF COE figure rests on an average of cash flows over the 2002-2006 period, of which 2004 (not 2006) appears to be the midpoint. Under the circumstances, excessive consideration should not be given to the relative correlation of year-to-year changes in the MSDCF and CAPM COE results.

C. STB Failure to Focus on Accuracy of the COE Results

WCTL respectfully submits that the STB's focus should be less on whether a particular COE methodology produces results that have a lower standard deviation or more stability over time, but much more on whether the results are more accurate, particularly in terms of reflecting the reasonable and legitimate expectations of the investment community, especially insofar as the STB's focus is on the opportunity cost of capital (which the STB consistently claims that it is).

---

than doubled between 2004 (\$513 million) and 2005 (\$1,073 million).

Of even greater concern to WCTL is that use of the five-year trend serves to mask what is a sharp upwards spiral in the railroad cash flow yield ratios, e.g., BNSF's yield was 4.4% in 2003, 4.7% in 2004, 8.2% in 2005, and 8.8% in 2006. Indeed, the 8.8% in 2006 is a rough approximation of what should be BNSF's overall COC (*see* discussion *infra*), yet the trend suggests that the yield alone will result in an increasing COE, even before application of the growth rate. The AAR's MSDCF thus appears to be a mechanism to extract a much higher cost of capital and appears to have been selected for just that purpose.

WCTL has previously explained its concern that the STB's CAPM methodology overstates the railroad industry COE by using a historical market risk premium that is higher than a reasonably estimated or perceived prospective market risk premium. The STB's stated focus is on the opportunity cost of capital, and since investors make investment decisions on the basis of expectations,<sup>22</sup> it is appropriate to use the prospective, and not historical, market risk premium to obtain a better reflection of investor expectations with respect to current investment decisions. In other words, the STB's insistence on using a historical market risk premium appears to result in a deliberate overstatement of the railroad industry COE and COC.

The effect of combining the already overstated CAPM COE with a MSDCF figure that is even higher would only increase the overstatement in the COE, to the benefit of the railroads and the detriment of shippers. Incorporation of a MSDCF analysis in the form proposed by the STB in its NPR would thus result in a less accurate estimate of the COE. The overstatement might be more "consistent" in that it would have a lower standard deviation, but it cannot be said that the resulting COE would be more precise, except in the sense of an illusion. This important matter is ignored altogether in the NPR.

---

<sup>22</sup>The past undoubtedly plays a large role in forming expectations, but few expect the past to repeat itself without change.

#### IV. A SOUND MSDCF SHOULD MORE ACCURATELY ESTIMATE THE COC

If the STB were truly interested in determining the accuracy of its proposed MSDCF methodology, it would compare the MSDCF results with published COC data from the financial community. All things being equal, a MSDCF methodology would be useful if it provided a closer correlation with the financial community's perception of the railroad industry COC, assuming that the COC reflected reasonable and legitimate investor expectations. If the values did not correlate, it would be reason to consider if the analysis were otherwise sound and/or if the investor expectations were inappropriate, *e.g.*, if they reflected circularity.

WCTL submitted significant information regarding the financial community's perception of the railroad industry COC in its reply comments in Ex Parte No. 558 (Sub-No. 10), *Railroad Cost of Capital - 2006*, dated July 25, 2007, which is hereby incorporated by reference. In particular, WCTL submitted as Exhibit B a report from UBS Investment Research, *Railroads, When Pigs Fly III: Silk Purses from Sow's Ears* (April 18, 2006), stating that in terms of the weighted average cost of capital, "the closest thing we can find to a consensus among CFOs and investors is about 9.5%," and that is the figure consistently used in UBS reports. For 2006, relying on just CAPM, the STB estimated a COC of 9.94%, which is already higher (albeit by a modest amount) than what is reported to be the consensus figure. The STB should thus be in no hurry to adopt a second methodology that would result in a significantly higher COC.

Moreover, WCTL's July 25, 2007 comments also included reports from Standard & Poor's ("S&P") that showed significantly lower COC for the individual railroads as of 2006: 8.6% for BNSF, 9% for CSX, 9.1% for NS, and 8% for Union Pacific. Crowley/Fapp R.V.S., Exhibit No. 8. In addition, KCS submitted comments on the STB's CAPM NPR on September 27, 2007, including a Verified Statement from a Vice Chairman of Morgan Stanley, claiming that its COC was 9.0% based on a prospective market risk premium and predicted (Barra) beta. KCS further claimed that its COC was higher than that of the four larger domestic Class I's, which were larger, not as leveraged, and had investment-grade debt.

Review of those figures (UBS, S&P, and KCS) indicates that the STB's CAPM figures overstate the railroad industry for COC. In addition, the MSDCF figures presented in the NPR (and by the AAR) are even higher, and thus more overstated, than those calculated under the CAPM analysis. The comparison indicates that combining the NPR MSDCF and the STB CAPM calculations would not improve accuracy, but would simply exacerbate the overstatement that already exists.

In contrast, the results for WCTL's MSDCF models are quite close to those reported by these other sources, especially S&P. For example, the simple average of the S&P COC figures for the four railroads in 2006 is 8.675%, which is about 1.3% lower than that calculated by the STB. The STB calculated a COE of 11.13%, which is 1.29 to 1.61 percentage points higher than the COE calculated under WCTL's two MSDCF

models. *See* WCTL's ANPR Comments, Crowley/Fapp V.S. at Exhibit No. 3.

Accordingly, use of the WCTL's MSDCF COE figures would result in a COE very close to that presented by S&P. Such a figure would also be near that suggested by the KCS analysis.

This very close correlation shows that the WCTL MSDCF models produce results that are closely aligned with those prepared by respected members of the financial community. This correlation with the expectations of the financial community should count considerably more than whether a methodology produces results that tend to lower the standard deviation.

#### V. APPROPRIATE NEXT STEPS

WCTL respectfully submits that the MSDCF proposal in the NPR should not be adopted in any manner as it would undermine the accuracy of the resulting COE and COC calculations by artificially inflating the values. To the extent the methodology could have any utility, it is only as the crudest of checks, *e.g.* if the MSDCF values were lower than the CAPM values, it would be a reason to consider whether the CAPM methodology were functioning soundly.

Otherwise, the Ibbotson methodology (assuming it has been accurately depicted by the AAR) is a very crude one that does not take into account key characteristics of the railroad industry, especially the unsustainability of the current

growth rates and the nature and role of capital expenditures. Furthermore, the AAR's support for the methodology is substantially at odds with positions it has taken elsewhere.

Under the circumstances, the STB cannot responsibly assign any weight to the MSDCF approach proposed in its NPR. Even assigning as little as a one-tenth weight to the MSDCF approach would undermine, rather than improve, the accuracy and reliability of the resulting COE calculation.

If the STB is truly interested in considering a MSDCF methodology that has the potential to improve accuracy and reliability, it should give meaningful consideration to the sort of approach presented in the models previously submitted by the WCTL. WCTL's models rest on a sound foundation and produce results that are consistent with reasonable and legitimate investor expectations. Alternatively, the STB may reasonably conclude that it should rely exclusively on its CAPM methodology for the moment, especially given the flux being experienced by railroad cash flows at the present time. In that regard, the WCTL MSDCF results are relatively close to those produced by the STB's CAPM implementation, although there is reason to conclude that the STB's CAPM results are too high (as opposed to too low), due in at least substantial part to the STB's decision to utilize a very long-term historical market risk premium.

## VI. CONCLUSION

For the reasons stated above, the STB should not adopt the MSDCF methodology proposed in its NPR. The model does not take into account the specifics of

the railroad industry, and there is ample basis to conclude that reliance on the model will undermine rather than improve the accuracy and reliability of the results under the CAPM methodology. If the STB wishes to consider a sound MSDCF model, then it should give meaningful consideration to the type of approach embodied in the two MSDCF models previously submitted by WCTL.

Respectfully submitted,

WESTERN COAL TRAFFIC LEAGUE

Of Counsel:

Slover & Loftus  
1224 Seventeenth Street, N.W.  
Washington, D.C. 20036  
(202) 347-7170

William L. Slover  
/s/ Robert D. Rosenberg  
Slover & Loftus  
1224 Seventeenth Street, N.W.  
Washington, D.C. 20036  
(202) 347-7170

Dated: September 15, 2008

Its Attorneys