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Law Department
Louis P. Warchot
Senior Vice President-Law
and General Counsel

May 30, 2012

Honorable Cynthia T. Brown
Chief, Section of Administration
Surface Transportation Board
395 E St., S.W.
Washington, DC 20423

Re: STB Docket No. EP 558 (Sub-No.15), Railroad Cost of Capital—2011

Dear Ms. Brown:

Pursuant to the Decision served by the Board on February 3, 2012, attached please find the Rebuttal Comments of the Association of American Railroads in the above proceeding. Please note that the work papers for this filing are included in Mr. Gray's Verified Statement and attached Appendices.

Respectfully submitted,

Louis P. Warchot

Louis P. Warchot
Counsel for the Association of
American Railroads

Enclosures

BEFORE THE
SURFACE TRANSPORTATION BOARD

STB Ex Parte No. 558 (Sub- No. 15)

RAILROAD COST OF CAPITAL — 2011

REBUTTAL COMMENTS OF THE ASSOCIATION OF AMERICAN RAILROADS AND ITS MEMBER RAILROADS

Paul A. Guthrie
Paul R. Hitchcock
James A. Hixon
Theodore K. Kalick
Jill K. Mulligan
Roger P. Nober
David C. Reeves
Louise A. Rinn
John M. Scheib
Peter J. Shudtz
Gayla L. Thal
Richard E. Weicher
W. James Wochner

Louis P. Warchot
Association of American Railroads
425 Third St., SW, Suite 1000
Washington, DC 20024
(202) 639-2502

Counsel for the Association of American Railroads

May 30, 2010

SURFACE TRANSPORTATION BOARD

RAILROAD COST OF CAPITAL — 2011	)))))	STB Docket No. EP 558 (Sub-No. 15)

REBUTTAL COMMENTS OF THE ASSOCIATION OF AMERICAN RAILROADS AND ITS MEMBER RAILROADS

By an order served on February 3, 2012, the Board instituted this proceeding to determine the railroad industry's cost of capital for the year 2011. In its order, the Board sought comment "on the following issues: (1) the railroads' 2011 current cost of debt capital; (2) the railroads' 2011 current cost of preferred equity capital (if any); (3) the railroads' 2011 cost of common equity capital; and (4) the 2011 capital structure mix of the railroad industry on a market value basis." *Railroad Cost of Capital – 2011*, EP 558 (Sub-No. 15) (STB served Feb. 3, 2012).

On April 20, 2012, the railroads, through the Association of American Railroads ("AAR"), submitted their calculation of the 2011 cost of capital using the methodology specified by the Board. The AAR calculated the railroads' overall cost of capital for 2011 at 11.57 percent, including a cost of common equity of 13.57 percent and a cost of debt of 3.97 percent.

On May 10, 2012, the Western Coal Traffic League ("WCTL") filed reply comments. WCTL took issue with certain aspects of the evidence submitted by the AAR in its comments and otherwise complained about the Board's methodology for calculating the cost of capital, but did not provide any alternative calculation of the railroad industry cost of capital for 2011. In these rebuttal comments the AAR responds to WCTL's reply comments to the extent that those reply comments address the application of the Board's methodology. As the Board has made clear, reply comments that address issues outside the scope the annual cost of capital proceeding (including proposals for changes the methodology adopted by the Board) are improper and should not be considered by the Board.

For the reasons discussed below (including the attached verified statement of Mr. Gray), WCTL's challenges to the AAR's 2011 cost of capital calculations are without merit and should be rejected.

Discussion

I. The AAR Properly Calculated the Cost of Debt

A. The AAR utilized an appropriate source of data to calculate the cost of debt

Consistent with last 21 cost-of-capital proceedings, the AAR opening comments computed the average current bond yield for 65 instruments of the sample railroads for which data were available for 2011. Bond data were derived from Bloomberg Professional, a subscription service, rather than Standard & Poor's Xpress Feed, another subscription service used in past cost-of-capital proceedings, because Bloomberg included data from 65 bonds or 98% of the possible information, whereas Standard & Poor's included data for only 30 bonds or 38% of the information. *See* AAR Opening Comments at 7.

WCTL complains about the AAR using Bloomberg as a bond data source, saying "the AAR has chosen to rely on proprietary data." WCTL Reply Comments at 3. However, as discussed more fully in Mr. Gray's attached verified statement, the use of a subscription service for outstanding bond data is not a change. The only change in the AAR comments is *which* subscription service was utilized. *See* Gray V.S. at 3. Thus, WCTL's reference to the Board's decision in *Railroad Cost of Capital – 2006*, EP 558 (Sub-No. 10)(STB served Apr. 15, 2008) is misleading. In that decision, the Board noted that parties had objected to its proposal to rely on weekly stock data from the New York Stock Exchange Index, in favor of publicly available S&P data. Because the Board found no material difference between the sources at issue, the Board continued to rely on publicly available information. *Railroad Cost of Capital – 2006*, EP 558 (Sub-No. 10)(STB served Apr. 15, 2008), Slip Op. at 7. Here, in contrast, AAR drew data from a subscription service that contained more relevant information than the subscription service relied on in past proceedings. As such, AAR properly relied on the more comprehensive information to calculate the cost of bond debt.

Moreover, it is unclear what data source WCTL is arguing should be utilized. Although WCTL describes "only a modest difference in the results using publicly-available S&P data," WCTL does not advocate using the S&P data to generate the cost of debt. Appendix O to the AAR's Opening Comments provides that calculation and illustrates the difference between using Bloomberg and S&P data. In addition to the calculations using Bloomberg data, Appendix O also contains a cost of bond debt without flotation costs (4.305%) and a bond market value ($21,973 million) calculated using Standard & Poor's data. As such, WCTL could readily calculate the cost of debt using S&P data. WCTL did not do so in its reply comments. These calculations are included in Appendix AA and Table 21A of this filing. Page 1 has a recalculated market value for debt. Page 2 has the cost of debt, and page 3 shows the capital structure. While use of the S&P data, which rely on sources that contain only 38 percent of the relevant information, would provide a more favorable result for the AAR and its member railroads, the Bloomberg data is more comprehensive and more appropriate for these purposes.

Finally, WCTL's statement that "...the AAR's calculations cannot be verified from its workpapers" is misleading. As in past cost of capital filings, the AAR bond calculations are available for verification in Appendix A of the *filing*, not the work papers. WCTL also erroneously claims "the AAR does not appear to have provided a work paper for its calculations for the S&P data". Summary tables for S&P data were provided in the work papers beginning on page 265 of the PDF (section 8 of the electronic bookmarks). *See* Gray V.S. at 4.

B. <u>No adjustment to the AAR evidence for the cost of debt is necessary</u>

As explained in Mr. Gray's verified statement, the AAR calculated the cost of debt based on real world market data. *See* Gray V.S. at 5-9. WCTL criticizes the AAR's submission with respect to the cost of debt, but does not assert that AAR deviated from the Board's procedures or made a calculation error. Thus, WCTL has failed to make a credible challenge to the AAR's calculation of the cost of debt.

WCTL claims that the AAR's cost of debt analysis "fails to take into account that a significant amount of the railroads' debt is callable." WCTL Reply Comments at 4. WCTL claims that "[c]allability provides an asymmetric benefit/option to the issuer, which causes the bond to trade at a discounted market value, which increases the effective interest rate (coupon payment divided by the reduced market value)," *Id.*, but does not explain how this should change the cost of debt calculation. Similarly, WCTL also criticizes the AAR's calculation of flotation costs, but fails to articulate how the cost of debt should be adjusted based on its criticism. *Id.* at 6.

Instead of focusing on the cost of capital, WCTL makes two ancillary arguments related to stand alone cost ("SAC") rate cases. First, WCTL argues that the Board has not allowed complainants in SAC cases to assume that their hypothesized stand-alone railroads could refinance their debt when interest rates fall. *Id.* at 4-5. Second, WCTL questions whether flotation costs "are included in the general and administrative costs typically incurred by a stand-alone railroad." *Id.* at 6. Such arguments involving changes to the Board's large rate case precedent is far beyond the scope of this annual cost of capital proceeding and the Board should properly ignore WCTL's arguments.

II. WCTL's Collateral Attacks on the Board's Established Cost of Equity Methodology are Beyond the Scope of This Proceeding

Having conceded that "the annual cost of capital dockets are not to be utilized for seeking changes to the STB's basic methodology," WCTL Reply Comments at 2 fn.2, and that the AAR has followed the Board's methodology for estimating the cost of equity, WCTL Reply Comments at 6, WCTL nonetheless dedicates five pages to attacking the Board's methodology for estimating the cost of equity. *See* WCTL Reply Comments at 6-11. WCTL's proposals to change the Board's established criteria and methodology for use in the annual cost of capital proceeding should be rejected as improper. *See* Gray V.S. at 9-13.

As the Board has repeatedly stressed, the annual cost of capital proceeding is not the proper forum for a party to propose changes to the Board's established cost of capital methodology. As expressly emphasized by the Board:

> We have established a procedural framework whereby in the Ex Parte No. 558 sub-numbered proceedings (558 proceedings) to determine the annual cost-of-capital figure, we are limited to applying the cost-of-capital methodology in place at the time, as determined in the Ex Parte No. 664 proceeding (664 proceeding). See Methodology To Be Employed In Determining The Railroad Industry's Cost Of Capital, STB Ex Parte 664, slip op. at 18 (STB served Jan. 17,

> 2008) (Cost of Capital CAPM). Proposed changes to the cost-of-capital model will be entertained only in the 664 proceeding. This allows the Board to complete its annual cost-of-capital determination in a timely manner and to provide all stakeholders with a meaningful opportunity to comment on any proposed methodological changes. Id. at 18.
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> ***
>
> We will not consider here the arguments presented by WCTL or AECC challenging our cost-of-capital methodology. It is settled administrative law that an agency need not, and as a matter of sound procedure should not, permit parties to relitigate generic rules in individual proceedings that apply those rules. See New Jersey Dept. of Environ. Protection v. NRC, 561 F.3d 132 (3d Cir. 2009) (state agency's attempt to relitigate generic environmental findings in an individual NRC proceeding amounted to a collateral attack on the NCR's licensing renewal regulations); Massachusetts v. NRC, 522 F.3d 115, 129-130 (1st Cir. 2008) (NRC reasonably refused to allow a state to intervene in an individual licensing proceeding to relitigate issues decided in a separate generic proceeding); Tribune Co. v. FCC, 133 F.3d 61, 68 (D.C. Cir. 1998) ("An agency need not – indeed should not – entertain a challenge to a regulation, adopted pursuant to notice and comment, in an adjudication or licensing proceeding"). Under our rules, WCTL and AECC must raise any challenges to our cost-of-capital methodology in a petition for a rulemaking. See Cost of Capital CAPM at 18 ("While in the past we have entertained challenges to the agency's model in the 558 proceedings, we will no longer do so. As such, future requests to [change our methodology] must be brought (in the form of a petition for rulemaking) in a 664 proceeding, not in the annual 558 proceeding, in which we calculate the cost of capital for a particular year.").

Cost of Capital—2008, EP No. 558 (Sub-No. 12)(STB served Sept. 25, 2009), Slip Op. at 2. As in past cost-of-capital proceedings where the Board's admonishment to the parties against proposing methodological changes in the annual cost of capital proceeding was ignored, such proposals should be given no consideration by the Board.[1] Here, WCTL has not provided any calculations that would support adopting some other cost of equity than that established by the

[1] *See, e.g., Railroad Cost of Capital – 2008*, EP 558 (Sub-No. 12) (STB served Sept. 25, 2009), Slip Op. at 2; *Railroad Cost of Capital – 2007,* EP 558 (Sub-No. 11) (STB served Sept. 26, 2008), Slip Op. at 7 (rejecting a beta calculation methodology used by WCTL that was a departure from the Board's cost of capital methodology); *Railroad Cost of Capital – 2009,* EP 558 (Sub-No. 13)(served Oct. 29, 2010), Slip Op. at 2 (rejecting comments of parties on issues not raised in the Board's order initiating the annual cost of capital proceeding).

evidence supplied by the AAR.

III. AAR Properly Established the Capital Structure Consistent with Board Procedures

In the AAR's Opening Comments, the AAR properly applied the Board's procedures and calculated a capital structure of 20.83 percent debt, 0.00 percent preferred equity, and 79.17 percent common equity. WCTL does not dispute that the AAR has applied the Board's procedures properly, but instead takes this opportunity to relitigate the classification of operating leases as debt. The Board considered and rejected a similar argument twice in the course of EP 664, *Methodology to be Employed in Determining the Railroad Industry's Cost of Capital.* [2] First, following the submission of evidence in response to an Advance Notice of Proposed Rulemaking, the Board observed that the proper treatment of operating leases is a controversial subject, and that the Board relies on Generally Accepted Accounting Principles ("GAAP") to distinguish between the types of leases. *See* 49 U.S.C. § 11161 (instructing the Board to conform its accounting principles to GAAP to the maximum extent practicable). *Methodology to be Employed in Determining the Railroad Industry's Cost of Capital*, EP 664 (STB served Aug. 20, 2007, Slip Op. at 8-9. WCTL renewed its argument in the Notice of Proposed Rulemaking phase and the Board treated the argument as a renewed request to institute a separate rulemaking, which it again properly denied. *Methodology to be Employed in Determining the Railroad Industry's Cost of Capital*, EP 664 (STB served Jan. 17, 2008), Slip Op. at 15. The Board should reject WCTL's arguments here as beyond the scope of this proceeding. [3]

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[2] The analysis contained in WCTL's reply makes other improper adjustments to capital structure beyond the treatment of operating leases. *See* Gray V.S. at 15.

[3] As explained in Mr. Gray's verified statement, to the extent that the Financial Accounting Standards Board ("FASB") may consider changes to GAAP for operating leases, the Board should not deviate from GAAP in advance of any changes that may be made by the FASB. Moreover, if the FASB makes any

Conclusion

The Board should determine that the railroads' cost of capital for 2011 is 11.57 percent.

Respectfully submitted,

Louis P. Warchot
Association of American Railroads
425 Third Street, S.W., Suite 1000
Washington, DC 20024
(202) 639-2502

Counsel for the Association of American Railroads

Paul A. Guthrie
Paul R. Hitchcock
Theodore K. Kalick
Jill K. Mulligan
Roger P. Nober
David C. Reeves
Louise A. Rinn
John M. Scheib
Peter J. Shudtz
Gayla L. Thal
Richard E. Weicher

May 30, 2012

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such changes, the Board should consider those changes in an EP 664 rulemaking proceeding, and not make ad hoc adjustments in an annual EP 558 cost-of-capital proceeding.

CERTIFICATE OF SERVICE

I hereby certify that on this 30th day of May, 2012, I served by first class mail, postage prepaid, a copy of the forgoing on the following:

Robert D. Rosenberg
Slover & Loftus
1224 Seventeenth St, NW
Washington, DC 20036-3003

Kim N. Hillenbrand
Snavely King Majoros O'Connor, Inc.
8100 Professional Place, Suite 306
Landover, MD 20785

Pamela Nwosu

Pamela Nwosu

BEFORE THE

SURFACE TRANSPORTATION BOARD

EX PARTE NO. 558 (Sub-No. 15)

RAILROAD COST OF CAPITAL — 2011

REPLY VERIFIED STATEMENT

OF

JOHN T. GRAY

SENIOR VICE PRESIDENT — POLICY AND ECONOMICS

ASSOCIATION OF AMERICAN RAILROADS

May 30, 2012

Table of Contents

Verified Reply Statement

of

John T. Gray

I. Introduction

My name is John T. Gray. I am Senior Vice President – Policy and Economics of the Association of American Railroads (AAR), with offices at 425 Third Street, S.W., Washington, DC 20024. The AAR is the trade association of the Nation's major railroads, as well as the railroads of Canada and Mexico. The AAR's United States railroad members, which include all of the Class I railroads, account for about 97 percent of our Nation's total railroad freight operating revenue.

When appropriate, the AAR represents the railroad industry before government bodies, including economic regulatory proceedings before the Surface Transportation Board ("STB" or "Board"). In particular, the AAR has participated in all of the STB proceedings addressing revenue adequacy standards and the annual Cost of Capital determinations.

I submitted a verified statement on behalf of the Association of American Railroads in this proceeding on April 20, 2012, and a summary of my qualifications and experience appears at the end of that statement. In this submission, I am responding to comments filed by the Western Coal Traffic League (WCTL) on May 10, 2012.

II. General Comments

As an initial matter, I would like to make some summary observations about the Western Coal Traffic League (WCTL) reply comments. First, WCTL agrees that the "AAR appears to have generally followed the STB's Cost of Capital methodology." If there are no mathematical errors, and the STB's methodology has been followed, then further discussion related to this proceeding should be moot.

It should not be necessary to respond to the WCTL comments that are beyond the scope of Ex Parte No. 558 (Sub-No. 15). However, I am compelled to address misleading and erroneous assertions made by WCTL to ensure that the record in this proceeding contains factually accurate information.

III. Debt

WCTL's first unfounded assertion and arguments involve the debt information provided by the AAR. WCTL appears to favor a bond data source that has data for less than half of the bonds available from the source used by the AAR. WCTL also appears to believe that the measurement of the types of debt used by railroad firms should be arbitrarily restructured by the Board in this proceeding.

A. Bond Data Sources

WCTL has objected to AAR's use of Bloomberg as the data source for bond information. The Bloomberg data source has far more complete coverage of railroad related bond data available to subscribers than does the data from Standard & Poor's, 98% versus 38%. AAR has discussed with Standard & Poor's their deteriorating coverage of railroad bonds for over a year to no avail. In fact, coverage by Standard & Poor's has continued to deteriorate during this period. If the Cost of Capital computation is to reflect a realistic value of the debt component, particularly more recently issued debt instruments, then it is essential that a new data source be located and utilized.

WCTL complains about the AAR using Bloomberg as a bond data source, saying "the AAR has chosen to rely on proprietary data,"[1] and that the "AAR's calculation cannot be verified from its workpapers."[2] WCTL's statement is misleading by noting that the AAR workpapers say "Must Pay Bloomberg for these data" instead of having actual data. WCTL fails to note that a similar message, shown below, appeared in last year's spreadsheet which used Standard & Poor's as the bond data source.

S&P notified the AAR via e-mail that the AAR's contract "does not permit the redistribution of the data...."

Both the Bloomberg data source and the previously-used Standard & Poor's Xpress Feed product are available to anyone who wishes to *subscribe* to the service.[3] AAR must subscribe to either data source, as must any other user. Subscribers to either product are not permitted to give away electronic versions of the data. While a free data source that provides close to 100 percent bond coverage would certainly be desirable, AAR is not aware of such a source.

Thus, WCTL's statement misleads the reader by claiming that the data retrieval for Bloomberg is different from Standard & Poor's – that is simply not true. WCTL's statement also is misleading concerning the verification of the bond calculations, by its statement saying "…the AAR's calculations cannot be verified from its workpapers". As in past Cost of Capital filings, our bond calculations are available for verification in our Appendix A which is in the *filing*, not the *workpapers*. WCTL also erroneously claims "the AAR does not appear to have provided a

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[1] Reply statement of the Western Coal Traffic League, May 10, 2012, page 2
[2] Reply statement of the Western Coal Traffic League, May 10, 2012, page 3.
[3] WCTL incorrectly describes the S&P bond data as non-proprietary on page 4 of its Reply, but, in fact, the AAR pays for this data as well.

workpaper for its calculations for the S&P data".[4] Summary tables for S&P data were provided in the workpapers beginning on page 265 of the PDF.

It is difficult to discern what WCTL really wants as a bond data source. WCTL describes "only a modest difference in the results using publicly-available S&P data" shown in my Appendix O. This, of course, ignores the differences in coverage and the fact that bond data from Standard & Poor's is available only by subscription.[5] My original Appendix O contains a cost of bond debt without flotation costs (4.305%) and a bond market value ($21,973 million) calculated using data from Standard & Poor's. As mentioned earlier, summary tables like those in the front of Appendix A are included in the workpapers beginning on page 265 of the PDF (section 8 of the electronic bookmarks). My Appendix AA in this statement contains a recalculation of the Cost of Capital using Standard & Poor's as the data source for bonds. (Data for other types of debt remain the same.) Page 1 has a recalculated market value for debt. Page 2 has the cost of debt, and page 3 shows the capital structure. Shown below in table number 21a is the Cost of Capital computation that appears to be preferred by the WCTL. While AAR would certainly not object to this result, we do not believe that it represents as accurate a portrayal of the Cost of Capital as does the result presented in our original submission.

[4] Reply statement of the Western Coal Traffic League, May 10, 2012, page 3.
[5] Reply statement of the Western Coal Traffic League, May 10, 2012, page 3.

Table No. 21a
Weighted Current Cost of Capital for 2011
Using Standard & Poor's

	Source Table	Capital Structure Weight	Current Cost
Debt	11	19.92 %	4.35 %
Common Equity	19	80.08	13.57
Preferred Equity	(Text)	0.00	n/a
Total		100.00 %	
Weighted Current Cost of Capital			**11.73 %**

B. Callable Debt

WCTL appears to believe that the Board's Cost of Capital methodology should be modified by changing the treatment of callable debt. They first assert a technical issue stating that callable bonds have higher effective interest rates because the bond is less desirable to investors, making an interest rate premium necessary. As an example, WCTL cites approximately $6 billion of UP debt as callable.[6]

WCTL's concern has no foundation. The fact is that callable bonds may, or may not, carry higher interest rates – depending on the bond's features. In many cases, the market will be indifferent. WCTL's example of approximately $6 billion of UP as callable is highly misleading. While this debt contains early redemption provisions, it is not callable early without UP being required to pay a *prohibitive make-whole premium.* Since bond investors would be compensated with a make-whole premium if UP redeems this type of debt early, a call on these bonds by UP is not a realistic economic option in normal circumstances. There is no meaningful early call uncertainty or risk to bond investors. Furthermore, the early-redemption provisions in UP's debt are very common, market standard terms broadly used by other investment grade industrial bond

[6] Reply statement of the Western Coal Traffic League, May 10, 2012, page 4.

issuers, including both rail and non-rail companies. Appendix BB contains an example of a callable UP bond. The second page of this appendix describes the make-whole under the heading Optional Redemption.

Included in the $6 billion of UP debt that the WCTL indicates (per Morningstar) is callable, is $1.75 billion issued since 2010 that is callable at par without premium – but only near the end of the debt's stated term (i.e. during the last 3 months for 10-year debt and during the last 6 months for 30-year debt). The debt is not callable prior to that point without paying a prohibitive make-whole premium to investors. The limited nature of these call provisions did not require an issuance yield premium for Union Pacific when this debt was sold to investors and it is very unlikely that the currently traded yields on this debt carry a meaningful call risk premium. An example of one of these bonds is shown in my Appendix CC. Page 2 of that appendix, under the heading Optional Redemption, describes the make-whole that applies for most of the life of the bond and the early redemption period that exists for the last 6 months before maturity.

Thus, the "callable" bonds described by WCTL typically do not carry a premium because of either: a) a make-whole provision; or b) a make-whole provision with a very limited period when the bond may be economically called at par. As a result, there is essentially no premium to be recognized notwithstanding WCTL's assertions.

However, more fundamentally, neither WCTL nor rail regulators are in a position to determine the most effective type of debt issued by a railroad. Railroad companies have a mix of different types[7] and durations[8] of debt, and the railroads are the ones most qualified to determine optimal mix of debt for their particular situation. Certainly, the railroad has strong incentives to

[7] Examples of different types of debt are equipment trust certificates, debentures, notes, and mortgage bonds. These types of debt may also have callable features.
[8] Duration can be short-term, medium-term, long-term or very long-term.

minimize the overall cost of the debt used to sustain its operation. Frequently, insertion of a callable feature into a debt instrument provides flexibility for the carrier to manage its debt to the lowest total cost, for example, when the market provides an opportunity to replace existing callable debt with lower cost notes.

WCTL also complains that shippers are not able to take advantage of the bond "callability" when interest rates fall. As discussed earlier, for most of these bonds there is no realistic likelihood for them to be called. For the small percentage of bonds that are truly callable, WCTL's claim would only be worth any consideration if there were not an annual Cost of Capital computation, which, of course, there is. Each year's Cost of Capital calculation is a "snapshot" of that particular time period. As a result, changes in the Cost of Capital caused by railroads calling debt is reflected for the period that the call actually happened.

In any case, arbitrary adjustment of debt cost upward or downward based on assumptions of the appropriateness of a particular type of debt instrument, with specific features and specific yield rates, at a particular point in time would be a complex, judgment based process, and would need to be handled with extreme caution. It would effectively require the Board to substitute its judgment as to the appropriateness of particular debt for that of railroad management.

Even if WCTL's assertions were factual or accurate, they are irrelevant when applied to a computation of Cost of Capital. The Cost of Capital is the actual cost of the funds needed to sustain the operation of an organization. This includes a mix of all funds, equity and debt, in the many forms that those funds may take. At any point in time, as well as over an extended time, the mix of those funds will necessarily have considerable variation. The mix of funds used in the Cost of Capital reflects the composite business decisions of railroad management over time. The management of a firm is in the best position to estimate the mix that will produce the most efficient practical financial cost structure for that firm's future. This mix must be based both on the present financial structure and the future expectations for both operational needs and financial markets. If WCTL's position on the issue of callable debt were applied to its logical conclusion, they would ask the STB to determine that only the shortest term, most risk-free debt be used as part of the Cost of Capital or as part of a railroad's financial structure for any regulatory proceeding. Clearly, this would be inconsistent with the Cost of Capital process.

IV. Flotation Costs

WCTL also believes the AAR should have not followed STB procedure in regard to flotation cost for debt, although they found the same procedure to be acceptable in 2009 and 2010. They believe that an adjustment should be made because they believe private placements of debt reduce a railroad's flotation costs. In addition, they believe that internal flotation costs should not be counted as flotation costs.[9]

It is clearly beyond the scope of this proceeding to determine whether debt placed with private parties has either a higher or lower flotation cost than that placed though public offerings or to undertake a study of a railroad's internal costs of issuing debt financing.[10]

However, as a point of clarification, WCTL's assertion that the issuance of debt through SEC Rule 144A by CSX, NS and UP is exclusively into the private placement market, and that this reduces bond flotation costs, is inaccurate. Secured debt issued by railroads, such as Equipment Trust Certificates or Pass Through Certificates related to equipment acquisition financings is exempt from SEC registration requirements through Rule 144A. This debt is

[9] WCTL later says, on page 15, that the internal flotation costs are not significant.
[10] The AAR has followed STB procedure and the results of that process produced a flotation cost that was the lowest in the last 10 years.

marketed to many of the same investors in railroad unsecured debt and generally carries fully comparable underwriting costs.

V. Cost of Equity

While WCTL admits the AAR followed STB methodology for calculating the cost of equity, it essentially is complaining about the results. The Multi-Stage Discounted Cash Flow (MSDCF) model and the market risk premium used in the Capital Asset Pricing Model (CAPM) are the targets of the WCTL complaints.[11] Once more, WCTL is using this proceeding as a platform to re-argue STB Ex Parte No. 664 and Ex Parte No. 664 (Sub-No. 1).[12, 13]

A. Multi-Stage Discounted Cash Flow (MSDCF) model

A new WCTL attack on the Board's MSDCF is their citing of a 2011 decision made by the Canadian Transportation Agency (CTA).[14] WCTL states that the "CTA decided to rely exclusively on the CAPM approach, and not on a combined CAPM/MSDCF approach…."[15] WCTL fails to mention that CTA's consultant, the Brattle Group says "Looking at evidence from a number of models continues to be best practice, because different models may be better at capturing different aspects of pricing."[16]

Interestingly, WCTL quotes the CTA's consultant (Brattle Group) as part of the foundation of their argument.

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[11] Reply statement of the Western Coal Traffic League, May 10, 2012, page 6.
[12] Ex Parte No. 664, *Methodology to be Employed in Determining the Railroad Industry's Cost of Capital*, decided January 17, 2008.
[13] Ex Parte No. 664 (Sub-No. 1), *Using a Multi-Stage Discounted Cash Flow Model in Determining the Railroad Industry's Cost of Capital*, decided January 23, 2009.
[14] The WCTL, on page 8, says the CTA Decision No. 425-R-2011 (December 9, 2011) can be accessed at http://www.cta-otc.gc.ca/eng/consultations-costofocapital/milestones#191195.
[15] Reply statement of the Western Coal Traffic League, May 10, 2012, page 14.
[16] Canadian Transportation Agency, Decision No. 425-R-2011, *Review of the methodology used by the Canadian Transportation Agency to determine the cost of capital for federally-regulated railway companies*, paragraph 209.

> "The major source of debate for the DCF model is determining the dividend growth rate, particularly for the long-term. There is generally no publicly available data on forecast growth rates for periods longer than 5 years. Unfortunately, the forecast growth rate has a major effect on the cost of equity estimated by the DCF method."[17]

However, on closer examination it appears that this is a criticism of a simple single-stage DCF model rather than a multi-stage model as used by the Board. No second or third stage is mentioned. The Board's MSDCF model, which is based on the model used by Morningstar's Ibbotson Associates, does not need forecast growth rates for periods longer than 5 years – so this criticism, while possibly accurate for a single stage DCF model, is irrelevant to the methodology used by the Board.

Another WCTL argument against the Board's use of MSDCF is that it estimates a cost of equity higher than that produced by the Capital Asset Pricing Model (CAPM). WCTL ignores the possibility that the CAPM estimate could be low, instead arguing that the MSDCF estimate must be too high. However, more basically, WCTL seems intent on ignoring the structural fundamentals of the two modeling approaches in favor of current outcome based analysis. In fact, it is entirely possible that the results of the two modeling approaches could be reversed as they probably would have been 15 years ago when CAPM's higher risk-free rates and market risk premiums could have caused higher cost of equity estimates than would MSDCF's expectations for future cash flows for an industry struggling with congestion and stagnating growth rates.

Finally, WCTL ignores the reality that ALL cost-of-equity models are "best possible" measurements and that these measurements vary on a continuous basis as markets react to events both internal and external to the firm being measured. As such, these models strive for directional validity for the arbitrary period being measured, not precision as implied by WCTL. Only by

[17] Canadian Transportation Agency, Decision No. 425-R-2011, Appendix B, paragraph 134.

performing and combining multiple estimates is it possible to be confident that the estimate obtained is reasonable.

The Board has already addressed and rejected WCTL's complaints about the first two stages of the MSDCF in Ex Parte No. 664 (Sub No. 1). At that time, the Board wisely decided that "Both the CAPM and the multi-stage DCF models we propose to use have their own strengths and weaknesses, and both take different paths to estimate the same illusory figure. By using an average of the results produced by both models, we harness the strengths of both models while minimizing their respective weaknesses."

B. CAPM's Market Risk Premium

WCTL repeats an argument rejected in Ex Parte No. 664, suggesting that the CAPM market risk premium should be based on a shorter period of years – and cites the CTA as an example of a regulator that uses only recent periods. Part of the WCTL quote reads "[I]t is also argued that a longer period gives too much weight to distant market events….", and WCTL says this can be found at paragraph 36 of the CTA Decision.[18] The quote is actually in paragraph 326, not 36, and is listed under the heading "Issue 10: Agency assessment against methodology criteria", and contains a list of thoughts. Under the same heading, in paragraph 328, the CTA says:

> The Agency continues to be of the opinion that the MRP should be based on a period that has sufficient length to incorporate many business cycles, periods of low and high performance, periods of volatility and stability, as well as to reflect the impact of unusual events and significant changes that the world has undergone.

[18] Reply statement of the Western Coal Traffic League, May 10, 2012, page 10.

Paragraph 335, under the heading “Issue 10: Agency conclusion” contains the CTA’s decision concerning the CAPM market risk premium – not the WCTL’s selected paragraph. That CTA conclusion is:

> Given the absence of any conclusive evidence of a structural break in the market premium time series and in order to satisfy its three criteria, the Agency will use as much historical return data as possible, subject to the availability of reliable data.

Note that the number of years used in calculating the market risk premium is *not* limited, as WCTL’s comment would lead one to believe, because it “…gives too much weight to distant market events…”, but rather the limitation is caused by the availability of reliable Canadian market data.

WCTL posits that a market risk premium based on returns since 1926 is inappropriate since “…conditions have changed since 1926.” and “…the economy and capital markets have evolved”. Unfortunately, most advocates of this position received a rude awakening in 2008, when the US economy clearly entered “The Great Recession”. According to the National Bureau of Economic Research, the recession, officially lasting from December 2007 through June 2009, was the longest contraction period (18 months) since the 1929 to 1933 Great Depression.[19] Some have argued, especially when comparing unemployment rates, that many elements of the “Great Recession” remain with us even 35 months after its official end.[20] Thus, ignoring the years that include the Great Depression is economically unsound and is likely to artificially decrease the market risk premium at a time when investors are well aware of the negative impact on market returns of an economic downturn. WCTL has previously raised this argument for use of a shorter period for measurement of the market risk premium, and that argument was rejected by the

[19] See National Bureau of Economic Research web page at http://www.nber.org/cycles/cyclesmain.html .
[20] See The Street web page, article titled: *We Never Left the "Great Recession"*, at http://www.thestreet.com/story/11521755/1/we-never-left-the-great-recession.html .

Board. In Ex Parte No. 664, it was noted that WCTL's own regulated utility members regularly and aggressively advocate use of longer time horizons to calculate the market risk premiums in their own proceedings before their state public utility commissions."[21]

C. Blume Adjustment

WCTL uses its mischaracterization of the CTA as an opportunity to again suggest the Blume adjustment to the CAPM's beta.[22] As discussed in last year's rebuttal, the Blume adjustment is an adjustment meant for a single firm – not an industry composite. Blume adjusts a *firm's* beta closer to the market's average of 1.0. This simplistic adjustment applies the same adjustment to every security, and does not consider the statistical accuracy of the beta calculation or the type of industry. WCTL mentions Wall Street companies that use the Blume Adjustment, but these adjustments are made to *individual firms*. Morningstar's Ibbotson Associates does not use the Blume adjustment, mentioning as a weakness its application of the same adjustment to every security.[23] The discussion of these adjustments is moot because the composite railroad is used to calculate the Board's beta, and this beta is not an individual company beta.

VI. Capital Structure

WCTL states that "(T)he capital structure should be adjusted to reflect operating leases and grants received by railroads."[24] Once again, this issue has already been argued before the Board and was rejected in Ex Parte No. 664.[25]

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[21] Ex Parte No. 664, *Methodology to be Employed in Determining the Railroad Industry's Cost of Capital*, decided January 17, 2008, page 8.
[22] Reply statement of the Western Coal Traffic League, May 10, 2012, page 11, footnote 10.
[23] Ibbotson SBBI 2012 Valuation Yearbook, p. 78.
[24] Reply statement of the Western Coal Traffic League, May 10, 2012, page 11.
[25] Ex Parte No. 664, *Methodology to be Employed in Determining the Railroad Industry's Cost of Capital*, decided January 17, 2008, page 15.

A. Operating Leases

WCTL proposes that operating leases be classified as debt in advance of any change by the Financial Accounting Standards Board (FASB). An adjustment to debt for the purpose of accounting for operating leases requires one to discount future lease payments to calculate a net present value. The AAR believes that the FASB has more accounting expertise than WCTL, and prefers to wait on FASB to create a standard.

WCTL provides an example which attempts to show the impact of incorporating operating leases into Union Pacific's debt computation. However, WCTL's adjusted debt example does not reflect a true adjustment for operating leases. WCTL did not use the UP net present value of operating leases in the 10-K ($3.224 billion) for its adjustment to the Cost of Capital. Instead, WCTL used the net present value of operating leases *plus Unfunded pension and OPEB ($0.623)* to derive its $3.847 billion "operating leases" adjustment. (See portion of 10-K below.)

Debt to Capital / Adjusted Debt to Capital

Millions, Except Percentages		*2011*
Debt (a)	$	8,906
Equity		18,578
Capital (b)	$	27,484
Debt to capital (a/b)		32.4%

Millions, Except Percentages		*2011*
Debt	$	8,906
Net present value of operating leases		3,224
Unfunded pension and OPEB		623
Adjusted debt (a)	$	12,753
Equity		18,578
Adjusted capital (b)	$	31,331
Adjusted debt to capital (a/b)		40.7%

Therefore, WCTL's 11.41 percent adjusted "after-tax" Cost of Capital is wrong for two reasons. First, no adjustment should be made because this was rejected in Ex Parte No. 664. Second, WCTL has inappropriately added other items to its operating leases adjustment.

B. Grants

WCTL also comments on railroad investment bases that contain assets that were purchased using grants or low-interest loans from public entities. Railroad assets financed using grants or low-interest loans typically supply benefits to the public in addition to the railroad.[26] Usually, railroads participate with governmental entities in these programs for one of two reasons:

1. The public entity desires for the railroad to pursue a project which it would never undertake in the normal course of business. An example of this type of project is the addition of passenger service to one of its lines.
2. The public entity wishes to accelerate the consideration of a project which the railroad might, in time, undertake but which does not currently have, or expect to have within a reasonable future, a competitive rate of return on the project investment. Frequently, projects done to assist local economic development agencies, or ones which are designed to improve the quality of life in communities, fall into this category.

Without public participation in these projects, they would never be undertaken by the railroad or would be undertaken at a much later date than is desirable for public purposes. Typically, funding for these projects is in two parts:

1. The public contributes funding to the extent that it believes is supported by the public benefits derived from the project, and,
2. The railroad contributes funding to the extent that it perceives it will derive benefits from the project.

[26] An example of an asset that benefits the community and the railroad would be an experimental low-emissions switching locomotive. These locomotives can cost much more than a conventional switching locomotive. Benefits (cleaner air) to the community exist from using a low-emissions locomotive, although they are difficult to measure.

Clearly, separating these contributions and their relative benefits can be a complex task that is highly dependent on the specific circumstances surrounding the specific characteristics of a particular project.

However, since these projects usually originate due to a public perception of public need rather than the railroad's business needs, it would seem to defy logic that the railroad's act of good citizenship toward one public entity should then be repaid by the Board penalizing that same railroad through the Cost of Capital process. The logical result of doing so would be to reduce a railroad's incentive to participate in public-private partnership projects which involved public funds, as all of them do, and which might bring public benefits. Following WCTL's argument would discourage this grant and low-interest loan investment funding because it would limit railroad participation in such projects. That would deprive the public of projects that bring public benefits and would place more of the burden of funding capital projects, particularly in the second category of projects mentioned above, on internally generated funds derived from revenue that a railroad obtains from its customers.

VII. Summary

The AAR has followed the STB's Cost of Capital methodology, and WCTL agrees. Clearly, WCTL has used its Reply Statement in Ex Parte No. 558 (Sub-No. 15) as a forum to try to change Ex Parte No. 664 and Ex Parte No. 664 (Sub-No. 1).

As stated in our comments submitted April 20, the AAR believes that it has correctly computed the railroad Cost of Capital for 2011 as 11.57 percent. AAR believes that the most realistic result is obtained by use of the Bloomberg bond data and we will do so in this proceeding and in future proceedings unless the Board should direct otherwise. All other issues mentioned by WCTL are without economic foundation and should be rejected in this proceeding.

VERIFICATION

WASHINGTON, D.C.)
) SS.

I, John T. Gray, being duly sworn, state that I have read the foregoing statement, that I know its contents, and that those contents are true as stated.

John T. Gray

JOHN T. GRAY

Subscribed and sworn to before me this 25th day of May 2012.

Pamela C Nwosu

Notary Public

My Commission expires:

Pamela C Nwosu
Notary Public, District of Columbia
My Commission Expires 2/14/2017

PAMELA C NWOSU
NOTARY PUBLIC
MY COMMISSION EXPIRES 2/14/2017
DISTRICT OF COLUMBIA

2011 Market Value of Debt ($000)

Using Standard & Poor's for Bond Data Source
(Compare to original Appendix E)

Type of Debt	Market Value: Traded or Modeled	Market Value: Non-Traded or Non-Modeled	Market Value: Total	Percent of: Subtotal	Percent of: Total
Bonds, Notes & Debentures	$10,296,525	$11,676,844	$21,973,369	98.60%	91.06%
Equipment Trust Certificates	313,043		313,043	1.40%	1.30%
Conditional Sales Agreements	0		0	0.00%	0.00%
Sub Total	$10,609,568	$11,676,844	$22,286,412	100.00%	92.36%
All Other — Capital Leases		$1,884,648	$1,884,648	102.16%	7.81%
All Other — Misc. Debt		-67,848	-67,848	-3.68%	-0.28%
All Other — Non-Modeled ETC		10,000	10,000	0.54%	0.04%
All Other — Non-Modeled CSA		17,974	17,974	0.97%	0.07%
Sub Total			$1,844,774	100.00%	7.64%
Total Market Value			**$24,131,186**		100.00%

Composite Current Cost Of Debt

Using Standard & Poor's

(Compare to original Table No. 11)

Type of Debt	Market Weight	Current Cost
Bonds, Notes & Debentures	98.60%	4.305%
Equipment Trust Certificates	1.40%	2.779%
Conditional Sales Agreements	0.00%	0.000%
Subtotal	100.00%	4.284%
Flotation Costs		0.067%
Weighted Cost of Debt		4.351%
Weighted Cost of Debt (Rounded)		**4.35%**

Capital Structure and Weights

Using Standard & Poor's

(Compare to original Table No. 20)

		2011		2010	
	Source Table	Market Value (mil)	Capital Structure Weight	Market Value (mil)	Capital Structure Weight
Debt	8	$24,131.2	19.92 %	$24,371.3	23.38 %
Common Equity	12	97,034.3	80.08	79,890.6	76.62
Preferred Equity	(Text)	0.0	0.00	0.0	0.00
Total		$121,165.5	100.00 %	$104,261.9	100.00 %

PROSPECTUS

UNION PACIFIC CORPORATION

Offer to Exchange
Up to $375,900,000 Principal Amount of
5.78% Notes due 2040
for
a Like Principal Amount of
5.78% Notes due 2040
which have been registered under the Securities Act of 1933

Union Pacific Corporation ("Union Pacific", the "Company", the "Issuer", "we", "us" or "our") is offering to exchange registered 5.78% Notes due 2040 (the "Exchange Notes") for its outstanding unregistered 5.78% Notes due 2040 (the "Original Notes"). The Original Notes and the Exchange Notes are sometimes referred to in this prospectus together as the "Notes". The terms of the Exchange Notes are substantially identical to the terms of the Original Notes, except that the Exchange Notes are registered under the Securities Act of 1933, as amended (the "Securities Act"), and the transfer restrictions and registration rights and related additional interest provisions applicable to the Original Notes do not apply to the Exchange Notes. The Original Notes may only be tendered in an amount equal to $1,000 in principal amount or in integral multiples of $1,000 in excess thereof. This offer is subject to certain customary conditions and will expire at 5:00 p.m., New York City time, on December 15, 2010, unless the Issuer extends it. The Exchange Notes will not trade on any established exchange.

Each broker-dealer that receives Exchange Notes for its own account pursuant to the Exchange Offer must acknowledge that it will deliver a prospectus in connection with any resale of such Exchange Notes. The letter of transmittal states that by so acknowledging and by delivering a prospectus, a broker-dealer will not be deemed to admit that it is an "underwriter" within the meaning of the Securities Act. This prospectus, as it may be amended or supplemented from time to time, may be used by a broker-dealer in connection with resales of Exchange Notes received in exchange for Original Notes where such Original Notes were acquired by such broker-dealer as a result of market-making activities or other trading activities. Union Pacific has agreed that, for a period of 180 days after the Expiration Date (as defined herein), it will make this prospectus available to any broker-dealer for use in connection with any such resale. See "Plan of Distribution".

Please see "Risk Factors" beginning on page 6 for a discussion of certain factors you should consider in connection with this Exchange Offer.

Neither the Securities and Exchange Commission (the "SEC") nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is November 15, 2010.

Ranking of the Exchange Notes; Holding Company Structure

The Exchange Notes will be our direct, unsecured unsubordinated obligations and will rank on a parity in right of payment with all of our other unsecured and unsubordinated indebtedness. As a holding company, we have no material assets other than our ownership of the common stock of our subsidiaries. We will rely primarily upon distributions and other amounts received from our subsidiaries to meet the payment obligations under the Exchange Notes. Our subsidiaries are separate and distinct legal entities and have no obligation, contingent or otherwise, to pay amounts due under the Exchange Notes or otherwise to make any funds available to us. This includes the payment of dividends or other distributions or the extension of loans or advances. Further, the ability of our subsidiaries to make any payments to us would be dependent upon the terms of any credit facilities or other debt instruments of the subsidiaries and upon the subsidiaries' earnings, which are subject to various business and other risks. In a bankruptcy or insolvency proceeding, claims of holders of the Exchange Notes would be satisfied solely from our equity interests in our subsidiaries remaining after the satisfaction of claims of creditors of the subsidiaries. Accordingly, the Exchange Notes will be effectively subordinated to existing and future liabilities of our subsidiaries to their respective creditors.

Limitation on Liens of Domestic Subsidiaries

The Indenture provides that we will not, nor will we permit any Subsidiary to, create, assume, incur or suffer to exist any Mortgage upon any stock or indebtedness, whether owned on the date of the Indenture or thereafter acquired, of any Domestic Subsidiary, to secure any debt of the Company or any other person (other than the debt securities under the Indenture), without in any such case making effective provision whereby all the outstanding debt securities shall be directly secured equally and ratably with such debt. This restriction does not include any Mortgage upon stock or indebtedness of a corporation existing at the time such corporation becomes a Domestic Subsidiary or at the time stock or indebtedness of a Domestic Subsidiary is acquired and any extension, renewal or replacement of any such Mortgage. (Section 1006)

With respect to the foregoing and pursuant to Section 101 of the Indenture:

"Debt" means indebtedness for money borrowed.

"Domestic Subsidiary" means a Subsidiary incorporated or conducting its principal operations within the United States or any State thereof.

"Mortgage" means any mortgage, pledge, lien, encumbrance, charge or security interest of any kind.

"Subsidiary," when used with respect to us, means any corporation of which a majority of the outstanding voting stock is owned, directly or indirectly, by us or by one or more of our other subsidiaries, or both.

Optional Redemption

The Exchange Notes will be redeemable in whole or in part at any time and from time to time, at our option, at a redemption price equal to the greater of (i) 100% of the principal amount of the Exchange Notes to be redeemed and (ii) the sum of the present values of the remaining scheduled payments of principal and interest on the Exchange Notes to be redeemed (exclusive of interest accrued to the date of redemption) discounted to the date of redemption on a semiannual basis (assuming a 360-day year consisting of twelve 30-day months) at the then current Treasury Rate, plus 30 basis points, plus, in either case, accrued and unpaid interest on the principal amount being redeemed to the date of redemption.

"Treasury Rate" means, with respect to the Exchange Notes, on any redemption date, (i) the yield, under the heading which represents the average for the immediately preceding week, appearing in the most recently published statistical release designated "H.15(519)" or any successor publication which is published weekly by the Board of Governors of the Federal Reserve System and which establishes yields on actively traded United

Prospectus Supplement
(To Prospectus Dated February 10, 2010)

$500,000,000

Union Pacific Corporation

4.75% Notes due 2041

We will pay interest on the notes each March 15 and September 15, commencing March 15, 2012. The notes will mature on September 15, 2041.

We may redeem some or all of the notes at any time and from time to time at the redemption price described in this prospectus supplement. There is no sinking fund for the notes. See "Description of the Notes" for a description of the terms of the notes.

	Price to Public (1)	Underwriting Discount	Proceeds to the Company
Per Note	98.031%	0.875%	97.156%
Total	$490,155,000	$4,375,000	$485,780,000

(1) Plus accrued interest, if any, from August 9, 2011.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus supplement or the accompanying prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

Delivery of the notes, in book-entry form only through The Depository Trust Company, will be made on or about August 9, 2011.

Joint Book-Running Managers

BofA Merrill Lynch **Citigroup** **J.P. Morgan**

Senior Co-Managers

BNP PARIBAS **Mitsubishi UFJ Securities** **RBS**

SunTrust Robinson Humphrey **Wells Fargo Securities**

Co-Managers

Barclays Capital **BNY Mellon Capital Markets, LLC** **Credit Suisse**

Morgan Stanley **US Bancorp**

The date of this prospectus supplement is August 4, 2011.

DESCRIPTION OF THE NOTES

The following description of the notes offered hereby supplements, and to the extent inconsistent therewith replaces, the description of the general terms and provisions of the Debt Securities set forth in the accompanying prospectus, to which description reference is hereby made.

General

The notes are initially being offered in the principal amount of $500,000,000, will bear interest at 4.75% per annum, and will mature on September 15, 2041. Interest on the notes will be payable semiannually on March 15 and September 15 of each year, commencing March 15, 2012, to the person in whose name the note is registered, subject to certain exceptions as provided in the indenture, at the close of business on March 1 and September 1, as the case may be, immediately preceding such March 15 or September 15. We may, without the consent of the holders, increase the principal amount of the notes in the future, on the same terms and conditions and with the same CUSIP number, as the notes being offered hereby. We will not issue any such additional notes unless the further notes are fungible with the notes being offered hereby for U.S. federal income tax purposes. Interest on the notes will be paid on the basis of a 360-day year consisting of twelve 30-day months. The notes will be issued under an indenture dated as of April 1, 1999, between The Bank of New York Mellon Trust Company, N.A., as successor to The Bank of New York Mellon (formerly known as The Bank of New York), as successor to JPMorgan Chase Bank, N.A. (formerly The Chase Manhattan Bank), as Trustee, and us.

The notes are senior, unsecured securities and will rank on a parity with all of our other unsecured and unsubordinated indebtedness. As a holding company, we have no material assets other than our ownership of the common stock of our subsidiaries. We will rely primarily upon distributions and other amounts received from our subsidiaries to meet the payment obligations under the notes. Our subsidiaries are separate and distinct legal entities and have no obligation, contingent or otherwise, to pay amounts due under the notes or otherwise to make any funds available to us. This includes the payment of dividends or other distributions or the extension of loans or advances. Further, the ability of our subsidiaries to make any payments to us would be dependent upon the terms of any credit facilities or other debt instruments of the subsidiaries and upon the subsidiaries' earnings, which are subject to various business and other risks. In a bankruptcy or insolvency proceeding, claims of holders of the notes would be satisfied solely from our equity interests in our subsidiaries remaining after the satisfaction of claims of creditors of the subsidiaries. Accordingly, the notes will be effectively subordinated to existing and future liabilities of our subsidiaries to their respective creditors.

Optional Redemption

At any time prior to March 15, 2041, the notes will be redeemable in whole or in part at any time and from time to time, at our option, at a redemption price equal to the greater of (i) 100% of the principal amount of the notes to be redeemed and (ii) the sum of the present values of the remaining scheduled payments of principal and interest on the notes to be redeemed (exclusive of interest accrued to the date of redemption) discounted to the date of redemption on a semiannual basis (assuming a 360-day year consisting of twelve 30-day months) at the then-current Treasury Rate, plus 20 basis points, plus, in either case, accrued and unpaid interest on the principal amount being redeemed to the date of redemption.

At any time on or after March 15, 2041, the notes will be redeemable in whole or in part at any time and from time to time, at our option, at a redemption price equal to 100% of the principal amount of the notes to be redeemed plus accrued and unpaid interest on the principal amount being redeemed to the date of redemption.

"Treasury Rate" means, with respect to any redemption date, (i) the yield, under the heading which represents the average for the immediately preceding week, appearing in the most recently published statistical