

EX PARTE NO. 523 (SUB NO. 1)

RAILROAD COST OF CAPITAL — 1995

Decided May 22, 1996

Upon review of the evidence tendered in this proceeding, the Board finds that, in 1995, the railroad industry had: (1) a current cost of debt of 7.4%; (2) a current cost of common equity capital of 13.4%; (3) a cost of preferred equity capital of 3.2%; (4) a capital structure mix of 26.0% debt, 72.8% common equity, and 1.2% preferred equity capital; and (5) a composite cost of capital of 11.7%.

BY THE BOARD:¹

One of the regulatory responsibilities that the Surface Transportation Board inherited from its predecessor, the Interstate Commerce Commission, is the annual determination of the railroad industry's cost of capital. This determination is used to evaluate the adequacy of railroad revenues each year under the procedures and standards mandated by Congress in the Railroad Revitalization and Regulatory Reform Act of 1976 (4R Act) and promulgated in *Standards for Railroad Revenue Adequacy*, 364 I.C.C. 803 (1981), *revised*, 3 I.C.C.2d 261 (1986). This finding may also be used in other

¹ The ICC Termination Act of 1995, Pub. L. No. 104-88, 109 Stat. 803 (the ICCTA) which was enacted on December 29, 1995, and took effect on January 1, 1996, abolished the Interstate Commerce Commission (ICC or Commission) and transferred certain functions and proceedings to the Surface Transportation Board (Board). While section 204(b)(1) of the ICCTA provides, in general, that proceedings pending before the ICC on the effective date of that legislation shall be decided under the law in effect prior to January 1, 1996, insofar as they involve functions retained by the ICCTA, the action at issue here, the adoption of new rules with application to future transportation and future tariff filings, necessitates analysis under the new law, and, therefore, this decision applies the law in effect after enactment of the ICCTA. Citations are to the current sections of the statute, unless otherwise indicated. This decision relates to a proceeding that was pending with the ICC prior to January 1, 1996, and to functions that are subject to Board jurisdiction pursuant to 49 U.S.C. 13701-02 and 13521.

regulatory proceedings including, but not necessarily limited to, those involving the prescription of maximum reasonable rate levels and proposed abandonments of rail lines.

The most recent determination of the railroad industry's cost of capital was for the year 1994, in *Railroad Cost of Capital - 1994*, Ex Parte No. 523 (ICC served June 16, 1995) (*Cost 94*). The instant proceeding, instituted in *Railroad Cost of Capital - 1995*, Ex Parte No. 523 (Sub No. 1) (ICC served December 27, 1995), updates the railroad industry cost of capital for the year 1995.

As has been the case since 1986, the only party to provide evidence in this proceeding was the Association of American Railroads (AAR). The AAR concluded that the composite cost of capital for the railroad industry for 1995 was 11.68%.²

Consistent with previous cost of capital proceedings, the AAR determined the overall railroad industry cost of capital rate using a "composite railroad" comprised of class I carriers controlled by selected major railroad holding companies. The selection of these companies is based on criteria developed in *Railroad Cost of Capital - 1984*, 1 I.C.C.2d 989 (1985).³ The following companies are included: Burlington Northern Santa Fe Corporation (BNSF), Consolidated Rail Corporation (Conrail), CSX Corporation (CSX), Illinois Central Corporation (IC), Kansas City Southern Corporation (KCS), Norfolk Southern Corporation (NS), and the Union Pacific Corporation (UP).⁴ These companies account for almost 90% of total operating revenues and railroad assets of all class I railroads.

² This figure is lower than the 1994 cost of capital rate (12.2%).

³ These criteria are as follows: (1) the company is listed on either the New York or American Stock Exchange; (2) the company paid dividends throughout the year; (3) the company's rail assets are greater than 50% of its total assets; and (4) the company has a debt rating of at least BBB (Standard & Poor's) and Baa (Moody's). The class I railroad holding companies not included in the composite failed to meet one or more of these criteria.

⁴ While these are the same companies used in *Cost 94*, *supra*, the composition of two of these companies (BNSF and UP) changed significantly during 1995 due to mergers. The Burlington Northern acquired the Atchison, Topeka and Santa Fe (ATSF), effective September 22, 1995. The Union Pacific acquired the Chicago and North Western (CNW), effective March 16, 1995. Because neither the ATSF nor CNW met the criteria for inclusion in the study frame, their stock prices, dividends, and growth prior to their acquisition are not included in the determination of the cost of equity. Their debt is included from the dates of their acquisition only.

As discussed below, we have examined the procedures used by the AAR to determine the following for 1995: (1) the current cost of debt capital; (2) the cost of common equity capital; (3) the cost of preferred equity capital; (4) the capital structure mix; and (5) the composite railroad industry cost of capital.

DEBT CAPITAL

The AAR developed its 1995 current cost of debt using bond price data from the brokerage firm of Salomon Brothers (for untraded bonds), supplemented by Standard & Poor's Corporation *Bond Guide* (for traded bonds). The AAR's cost of debt is based on the market value yields of the major forms of long-term debt instruments for the sample railroad holding companies listed above.⁵ These debt instruments include: (1) bonds, notes, and debentures (bonds); (2) equipment trust certificates (ETCs); and (3) conditional sales agreements (CSAs). The yields of these debt instruments are weighted based on their market value.

Cost of Bonds, Notes, and Debentures (Bonds)

The AAR used data developed by Salomon Brothers for the current cost of bonds based on monthly prices and yields, as of the last trading day of each month during 1995, for all issues (a total of 45) that were publicly traded during the year.⁶

⁵ Debt for the ATSF is counted at only 25% of value to account for its acquisition by BN in late September. Similarly, debt for CNW is counted at only 75% of value to account for its acquisition by UP in the middle of March.

⁶ The AAR data include 6 new bonds issued by the sample railroad holding companies during 1995 and 39 bonds issued prior to 1995 that were publicly traded during the year.

To determine the current (1995) market value of bonds, the AAR used both the 45 traded bonds noted above and 89 additional bonds that were outstanding but not traded during 1995.⁷ Continuing the procedure in effect since 1988, the AAR based the market value on monthly prices for all traded bonds (other than those issued in 1995) and the face or par value (\$1,000) for all bonds not traded during the year (as well as for those issued in 1995). The AAR computed the total market value of all outstanding bonds to be \$9,642.3 million.⁸

The AAR calculated the weighted average 1995 yield for this bond sample to be 7.32%. We have reviewed the AAR's calculations and workpapers. Its calculations are accurate and are based on the correct methodology. Therefore, we accept the AAR's weighted cost of bonds of 7.32%.⁹

Cost of Equipment Trust Certificates (ETCs)

ETCs are not actively traded on secondary markets. Therefore, their costs must be estimated by comparing them to the yields of other debt securities that are actively traded. Following the practice in previous cost of capital proceedings, the AAR used government securities with maturities similar to these ETCs as surrogates for determining yields. After determining the 1995 yields for these government securities, the AAR added basis points¹⁰ to these yields to compensate for the additional risks associated with the ETCs.

⁷ In its narrative comments, AAR indicated that 128 issues were used. However, an examination of the AAR's workpapers revealed that six additional bonds were included to arrive at the bond sample actually used.

⁸ We compute the dollar value of bonds to be slightly higher (\$9,655.3 million). The difference is due to small adjustments made to the valuation of ATSF and CNW bonds. These adjustments, as well as dollar values by company, are shown in Table 1 in the Appendix.

⁹ See Table 2 in the Appendix.

¹⁰ A basis point equals 1/100th of a percentage point.

Two new ETCs were issued during 1995 by CSX. The AAR used these two new ETCs to develop the ETC yield spread for "A" rated ETCs.¹¹ In addition, 68 ETCs issued prior to 1995 are still outstanding. Using the yield spreads, the AAR calculated the weighted average cost of ETCs to be 6.84% and their market value to be \$1,871.4 million for 1995.¹² We have recomputed the ETC cost and market value using the AAR's data (with a slight adjustment for ATSF ETCs) and conclude that the AAR's calculations are correct. The results of our computations are shown in Table 3 in the Appendix.

Cost of Conditional Sales Agreements (CSAs)

Because no new CSAs were issued during 1995, the AAR used the average of the relative differences between ETC and CSA yield spreads developed between 1982 and 1988 to compute the CSA yield spreads for 1995.¹³ Using these yield spreads, the AAR determined the weighted average cost of CSAs for 1995 to be 7.14%. The AAR determined the market value for CSAs to be \$9.6 million.¹⁴ We have recomputed the cost and market value of the CSAs using the AAR's data and we agree with the AAR's calculations. The results of our computations are shown in Table 4 in the Appendix.

¹¹ The AAR determined that 50 basis points should be added to government bond yields for ETCs rated A, based on the two new CSX issuances, a 5.7% decrease in the number of basis points used in *Cost 94, supra*. Because no new ETCs with ratings of AA or AAA were issued in 1995, this same 5.7% decrease was applied to the 1994 basis points for AA and AAA ETCs. This produced a 31 basis point spread for ETCs with either of those ratings.

¹² The AAR has approximated the market values of ETCs using the same procedures used in previous cost of capital determinations. These procedures are based on the use of standard security industry formulas found in *Standard Security Calculation Methods*.

¹³ Because no new CSAs have been issued since 1988, the AAR used this same procedure and the years 1982 through 1988 in past cost of capital determinations. The average numbers of additional basis points for CSAs versus ETCs are: AAA - 39, AA - 49, and A - 62. Using these numbers and the basis point spreads developed for ETCs, the AAR determined that the following number of basis points should be added to CSAs, depending on their rating: AAA - 70 basis points, AA - 80 basis points, and A - 112 basis points. The spreads for all three ratings are slightly lower than those for 1994.

¹⁴ The AAR approximated the market values of CSAs using the same procedures used in previous cost of capital determinations. These procedures are based on the use of standard security industry formulas found in *Standard Security Calculation Methods*.

Miscellaneous Debt and Capitalized Leases

As in previous cost of capital determinations, the AAR excluded the costs of capitalized leases and miscellaneous debt in its computation of the overall current cost of debt because these costs are not observable. Also in keeping with past practice, the AAR included the book value of leases and commercial paper in the determination of the overall market value of debt, which is used to determine the railroads' capital structure mix. The AAR noted that the cost of capitalized leases is generally higher than that of other debt, but it did not make any upward correction for the cost of those leases. The AAR determined that the market value for the capitalized leases and miscellaneous debt (mainly commercial paper) was \$4,472.8 million for 1995. We have examined the AAR's data and have made a slight adjustment to that number, determining that the correct amount is \$4,473.5 million.¹⁵ Table 5 in the appendix shows our recalculations for capitalized leases and miscellaneous debt.

The AAR determined that the total market value for all debt during 1995 was \$15,996.1 million. Due to slight adjustments which we have made for ATSF and CNW, we compute the total market value for all railroad debt in 1995 equal to \$16,021.746 million.¹⁶

Flotation Costs of Debt

As in past cost of capital decisions, the AAR's calculation of the current cost of debt included a flotation cost factor consisting of costs associated with the issuance of new debt such as underwriters' fees, advertising costs, and legal fees. The AAR determined that flotation costs for debt equalled 0.15%.

¹⁵ The difference is due to a slight adjustment for the percentage of time that ATSF and CNW debt is included in our calculations.

¹⁶ See Table 6 in the Appendix for a complete breakdown of the market value of debt.

We have reviewed the AAR's calculations concerning flotation costs and find that the cost factors developed for the various components of debt are reasonable. Also, an overall flotation cost rate of 0.15% was used in *Cost 94, supra*. We accept this figure for 1995.¹⁷

Overall Current Cost of Debt

The AAR concluded that the railroads' current cost of debt for 1995 was 7.40%. We have reviewed the AAR's evidence relative to the current cost of debt and arrive at the same 7.40% figure. Our calculations are shown in Table 8 in the Appendix.

COMMON EQUITY CAPITAL

In previous cost of capital decisions, we determined the cost of common equity using the Discounted Cash Flow (DCF) method. The AAR submitted evidence as to the current cost of equity capital using this procedure. This evidence is virtually identical to that furnished by the AAR in previous cost of capital proceedings.

Market Value of Common Equity

The AAR calculated the 1995 market value of common equity by multiplying the number of shares outstanding by the daily closing price for each trading day during the year for each of the sample railroads.¹⁸ The AAR determined that the average market value for the year 1995 was \$44,865.7 million. We have reviewed the AAR's calculations and find them to be correct. Table 9 in the Appendix shows the average market value of common equity and relative weights for each railroad.

¹⁷ See Table 7 in the Appendix for these calculations. The AAR's flotation cost factors are based on data developed by Salomon Brothers for ETCs and studies by the Securities and Exchange Commission concerning flotation costs for issuances of new bonds. The estimated flotation cost for CSAs is the same as that used in prior proceedings.

¹⁸ The stock prices for BN reflect BN share prices through September 21, and BNSF share prices for September 22 and thereafter.

Discounted Cash Flow (DCF) Method

The DCF method is commonly used for determining the cost of common equity. It is used by the majority of state regulatory agencies and was used by the ICC for many years. Under the DCF method, the cost of common equity is the discount rate that makes the present value of expected returns from holding a stock (dividends and price appreciation) equal to the current market value of that stock. The DCF method considers two variables — dividend yield and expected growth in earnings per share.¹⁹

Dividend Yield

The AAR computed the 1995 average dividend yield for the composite group of railroads using the same method that it employed in past cost of capital determinations, *i.e.*, weighting each company's monthly dividend yield on the basis of its prorated share of the total market value for the composite for each day during that month based on daily closing prices. The AAR developed a composite dividend yield of 2.52% for 1995. This figure is 0.06 of a percentage point lower than the 1994 dividend yield (2.58%). Computations of the

¹⁹ In *Railroad Cost of Capital - 1982*, 367 I.C.C. 662 (1983) (*Cost 82*), the ICC developed the following DCF formula:

$$K = [D_{(0)} \times (1 + g/2)/P_{(0)}] + g, \text{ where:}$$

K = cost of common equity

$D_{(0)}$ = annual dividend

$P_{(0)}$ = current stock price

g = expected growth rate

This formula assumes that, at the start of the year, an investor would require a return on equity (K) equal to $[D_{(0)}/P_{(0)}] + g$, where $D_{(0)}/P_{(0)}$ represents the average dividend yield expected for the year and g represents an estimate of the expected growth rate. At the end of the year, the investor would be concerned with projected returns for the following year and would require a K equal to $[D_{(0)} \times (1+g)/P_{(0)}] + g$, which would allow for dividend growth for the following year. The average of these two formulas produces this DCF formula.

dividend yield are shown in Table 10 in the Appendix. Also shown in Table 10 is an alternate set of computations that we used to verify the AAR's numbers.²⁰

Growth Rate

The AAR used the growth rate forecasts published monthly by the Institutional Brokers Estimate System (IBES) throughout 1995.²¹ The AAR developed growth rates for each of the railroads that make up the composite by averaging the IBES forecasts for that railroad. It then weighted each railroad's growth rate according to its prorated share of the market value of the total railroad composite to arrive at a single growth rate. The AAR concluded that this composite growth rate was 10.69%, based on a truncated average of the forecasts.²² Our examination of the AAR's computations has revealed no errors. The 10.69% growth rate is 0.37 of a percentage point lower than the 11.06% growth rate developed in the 1994 cost of capital decision. The growth rate calculations are shown in Tables 11 (truncated) and 12 (nontruncated) of the Appendix.

Consistent with previous cost of capital determinations, we conclude that the truncated IBES growth rate should be used because there can be wide variations between the highest and lowest estimates. Thus, we have used our recalculated truncated growth rate equal to 10.69% for the DCF model to determine the 1995 cost of common equity capital.

²⁰ Our computations used annual averages for each railroad, weighted by the average value of the common equity for that railroad. The AAR's method weighted dividends on a monthly basis. The two methods produce the same results.

²¹ As has been the case since the findings in *Railroad Cost of Capital - 1987*, 4 I.C.C.2d 621 (1988), we have relied on the use of consensus analyst 5-year earnings per-share growth rate data published by IBES to develop the growth rate estimates used in the DCF approach. IBES data include growth rate estimates from essentially all major brokerage firms.

²² IBES provides a simple average, the highest forecast, and the lowest forecast for each railroad. The AAR excluded the highest and lowest forecasts to arrive at the truncated average. This is the same procedure that has been followed in previous cost of capital determinations.

Flotation Costs

As is true with the issuance of new debt instruments, flotation costs are also incurred with the issuance of new equity securities. In *Adequacy of Railroad Revenue (1979 Determination)*, 363 I.C.C. 344, 352 (1979), the ICC concluded that flotation costs for equity capital should not be considered unless new equity had, in fact, been issued. This conclusion has been reaffirmed in subsequent cost of capital decisions. Because no railroad issued any new common equity capital during 1995, no flotation cost factor has been included in the DCF formula.²³

Conclusion - Cost of Common Equity Capital

Using a truncated average IBES growth rate (g) of 10.69%, a dividend yield ($D_{(0)}/P_{(0)}$) of 2.52%, and the Board's DCF formula, the AAR determined the cost of common equity for 1995 to be 13.35%. Using our slightly reduced recalculated truncated average growth rate, we determine that the 1995 cost of common equity using the DCF method is 13.34%, rounded to 13.3%. This figure is 0.5 of a percentage point lower than the cost of common equity for 1994 (13.8%).²⁴

PREFERRED EQUITY

Preferred equity has some of the characteristics of debt and some of the characteristics of equity. Essentially, preferred issues are like common stocks in that they have no maturity dates and represent ownership in the company (usually with no voting rights attached). They are like debt in that they usually have fixed dividend payments (akin to interest payments). The railroads' total market value weight of preferred stock relative to common stock and debt has been declining and represents only slightly more than 1% of the total capitalization for the composite group.

²³ BNSF issued stock in exchange for outstanding shares to the shareholders of BN and ATSF. However, this exchange did not result in any flotation costs being incurred.

²⁴ See Table 13 in the Appendix for our calculation of the cost of equity.

The AAR examined the three preferred stock issues of the sample railroads²⁵ and determined their cost using the dividend yield method (dividends divided by market price). The AAR computed the market value of preferred stock by multiplying the average quarterly price for each issue by the number of shares outstanding during the quarter. This is the same procedure used in previous cost-of-capital determinations. The AAR computed the market value of preferred stock during 1995 to be \$741.925 million and the cost of preferred equity for 1995 to be 3.23%, somewhat lower than the 1994 figure (4.57%).

We have examined the AAR's evidence and made some small adjustments to its computations. We conclude that during 1995, the market value of preferred stock was \$741.945 million, and its cost was 3.23%. Table 14 in the Appendix contains the calculations of the cost of preferred equity.

CAPITAL STRUCTURE MIX

In *Cost 82, supra*, the ICC decided to use a market-value based capital structure mix to determine the cost of capital. This is the tenth proceeding that includes the market value of preferred equity as well as the market value of debt and common equity. Our computations of market values and the capital structure mix for 1995 are shown in Table 15 in the Appendix.

The market value of bonds, preferred stock, and common equity for 1995 was \$61,629.4 million. This figure is substantially higher than the market value for 1994 (\$54,897 million).²⁶ The percentage share of common equity declined from 74.4% in 1994 to 72.8% in 1995. The percentage share of debt increased from 23.8% in 1994 to 26.0% in 1995. The percentage share of preferred equity declined from 1.8% in 1994 to 1.2% in 1995.

²⁵ The three railroads with preferred stock are Conrail, KCS, and NS. Over 90% of the total market value of preferred stock is attributable to the Conrail issue.

²⁶ The increase in market value is the result of (1) declines in interest rates during 1995 (which increased bond prices by almost \$3 billion) and (2) a sharp increase in stock market prices (slightly over \$4 billion) resulting from a substantial increase in overall performance in the stock market.

COMPOSITE COST OF CAPITAL

Based on the evidence furnished in the record, and our adjustments due to rounding and other factors, we conclude that the 1995 composite cost of capital for the railroad industry, as set forth in Table 16 in the Appendix, was 11.7%.²⁷ The procedure used by the AAR to develop the composite cost of capital is consistent with the Statement of Principle established by the Railroad Accounting Principles Board: "Cost of capital shall be a weighted average computed using proportions of debt and equity as determined by their market values and current market rates."²⁸ The 1995 cost of capital is 0.5 percentage point lower than the 1994 cost of capital (12.2%).

CONCLUSIONS

We find that, for 1995:

1. The current cost of railroad debt equals 7.4%.
2. The cost of common equity equals 13.4%.
3. The cost of preferred equity equals 3.2%.
4. The capital structure mix of the railroads equals 26.0% debt, 72.8% common equity, and 1.2% preferred equity.
5. The composite railroad industry cost of capital equals 11.7%.

Environmental and Energy Considerations

We conclude that this action will not significantly affect either the quality of the human environment or the conservation of energy resources.

²⁷ This is essentially the same as the 11.68% figure developed by the AAR. Any differences are due to rounding and to our small adjustments to the overall market value of debt.

²⁸ Railroad Accounting Principles Board *Final Report*, Vol. 1, (1987).

Regulatory Flexibility Analysis

Pursuant to 5 U.S.C. 605(b), we conclude that our action in this proceeding will not have a significant economic impact on a substantial number of small entities. The purpose and effect of the action are merely to update the annual railroad industry cost of capital finding. No new reporting or other regulatory requirements are imposed, directly or indirectly, on small entities.

It is ordered:

1. This decision is effective on June 5, 1996.
2. This proceeding is discontinued.

By the Board, Chairman Morgan, Vice Chairman Simmons, and Commissioner Owen.

APPENDIX

Table 1

Traded & Untraded Bonds / Market Value By Company

Railroad	Traded Bonds	Untraded Bonds	Total Bonds	Market Value Traded Bonds (\$000)	Market Value All Bonds (\$000)	Mkt Val Traded to All Bonds
Burlington Northern ¹	16	8	24	\$1,718,819	\$1,983,667	86.6%
Conrail ²	5	21	26	1,247,257	1,439,125	86.7%
CSX	5	13	18	955,914	1,701,940	56.2%
Illinois Central ³	2	9	11	196,490	375,417	52.3%
Kansas City Southern ⁴	5	3	8	507,187	550,136	92.2%
Norfolk Southern	5	5	10	567,868	656,271	86.5%
Union Pacific ⁵	7	30	37	1,032,280	2,948,71	35.0%
TOTAL	45	89	134	\$6,225,815	\$9,655,267	64.5%
¹ The Burlington Northern figures contain 2 new issues (\$650 million) included as traded in 1995. It also includes 4 ATSF bonds with a market value of \$450.993 million, adjusted to account for the BN's acquisition of ATSF on September 22, 1995 by using a factor of 27.671%, for a net market value of \$124.794 million. This is slightly higher than the AAR's dollar value for ATSF bonds because the AAR used a 25% factor. ² The Conrail figures contain 2 new issues (\$30 million) included as traded in 1995. ³ The Illinois Central figures contain 1 new issue (\$100 million) included as traded in 1995. ⁴ The Kansas City Southern figures contain 1 new issue (\$100 million) included as traded in 1995. ⁵ The Union Pacific figures include 8 CNW bonds with a market value of \$19.953 million, adjusted to account for UP's acquisition of CNW on March 16, 1995 by using a factor of 79.716%, for a net market value of \$15.908 million. This is slightly higher than the AAR's dollar value for CNW bonds because the AAR used a 75% factor.						

1 S.T.B.

Table 2

Calculation of Value and Cost of Bonds, Notes, & Debentures

Railroad	Number of Traded Issues	Market Value (\$000)	Current Cost	Weighted Cost
Burlington Northern	16	\$1,718,819	7.23%	2.00%
Conrail	5	1,247,257	7.43%	1.49%
CSX	5	955,914	7.20%	1.11%
Illinois Central	2	196,490	7.55%	0.24%
Kansas City Southern	5	507,187	7.16%	0.58%
Norfolk Southern	5	567,868	7.18%	0.65%
Union Pacific	7	1,032,280	7.58%	1.26%
COMPOSITE	45	\$6,225,815		7.32%

1 S.T.B.

Table 3

Calculation of Value and Cost of Equipment Trust Certificates

Railroad	When Issued	No. of Issues	Market Value (\$000)	Yield %	Weighted \$ Yield (\$000)
Burlington Northern	Pre-1995	4	\$100,777	6.995%	7,049
Atchison Topeka & Santa Fe ¹	Pre-1995	11	123,542	7.005%	8,654
Conrail	Pre 1995	2	128,317	6.851%	8,791
CSX	Pre-1995	15	256,662	6.985%	17,928
	New in 1995	2	107,800	7.054%	7,604
	Total	17	364,462	7.005%	25,532
Illinois Central	Pre-1995	0	0	0%	0
Kansas City Southern	Pre-1995	4	104,309	6.981%	7,282
Norfolk Southern	Pre-1995	18	450,794	6.760%	30,474
Union Pacific	Pre-1995	14	611,101	6.721%	41,072
COMPOSITE	Pre-1995	68	1,775,502	6.829%	121,250
	New in 1995	2	107,800	7.054%	7,604
Total		70	1,883,302	6.842%	128,854
¹ The Atchison Topeka & Santa Fe's ETC's have an actual market value of \$446.466 million, which is adjusted downward to account for the BN's acquisition of ATSF on September 22, 1995 by using a factor of 27.671%, for a net market value of \$123.542 million. This is slightly higher than the AAR's dollar value for ATSF ETCs (\$111.617 million) because the AAR used a 25% factor.					

1 S.T.B.

Table 4

Calculation of Value and Cost of Conditional Sales Agreements

Railroad	Number of Issues	Market Value (\$000)	Current Cost	Weighted Cost
Burlington Northern	0	\$0	0%	0.00
Conrail	0	0.0	0%	0.00
CSX	2	4,213.6	7.399%	3.25%
Illinois Central	0	0.0	0%	0.00
Kansas City Southern	0	0.0	0%	0.00
Norfolk Southern	1	5,393.2	6.945%	3.90%
Union Pacific	0	0.0	0%	0.00
COMPOSITE	3	\$9,607		7.14%

1 S.T.B.

Table 5

Calculation of Value of Capitalized Leases & Miscellaneous Debt

Railroad	Capitalized Leases (\$000)	Miscellaneous Debt (\$000)	Total Other Debt (\$000)
Burlington Northern	\$150,177	\$1,113,597	1,263,774
Atchison Topeka & Santa Fe ¹	1,184	0	1,184
Conrail	489,000	203,907	692,907
CSX	121,033	300,000	421,033
Illinois Central	0	0	0
Kansas City Southern	6,697	0	6,697
Norfolk Southern	100,885	500,000	600,885
Union Pacific	224,654	1,251,473	1,476,127
Chicago & North Western ²	10,963	0	10,963
Total	\$1,104,593	\$3,368,977	\$4,473,570

¹ The Atchison Topeka & Santa Fe's capitalized leases have an actual market value of \$4.278 million, which is adjusted downward to account for the BN's acquisition of ATSF on September 22, 1995, by using a factor of 27.671%, for a net market value of \$1.184 million. This is slightly higher than the AAR's dollar value for ATSF capitalized leases (\$1.070 million) because the AAR used a 25% factor.

² The Chicago & North Western's capitalized leases have an actual market value of \$13.753 million, which is adjusted downward to account for UP's acquisition of CNW on March 16, 1995 by using a factor of 79.71% for a net market value of \$10.963 million. This is slightly higher than to AAR's dollar value for CNW capitalized leases (\$10.315 million) because the AAR used a 75% factor.

1 S.T.B.

Table 6

Calculation of 1995 Market Value of Debt

Type of Debt	Market Value of Debt (000)	Percentage of Total Market Value (Excluding Miscellaneous Debt)
Bonds, Notes, & Debentures	\$9,655,267	83.61%
ETCs	1,883,302	16.31%
CSAs	9,607	0.08%
Subtotal	11,548,176	100.00%
Capitalized Leases/Miscellaneous Debt	\$4,473,570	NA
Total Market Value of Debt	16,021,746	NA

Table 7

Calculation of Flotation Cost For Debt

Type of Debt	Market Weight	Flotation Cost	Weighted Average Flotation Cost
Bonds, Notes, & Debentures	83.61%	0.16%	0.13%
ETCs	16.31%	0.13%	0.02%
CSAs	0.08%	0.13%	0.00%
Total	100.00%		0.15%

Table 8

Calculation of 1995 Cost of Debt

Type of Debt	Percentage of Total Market Value (Excludes Miscellaneous Debt)	Debt Cost	Weighted Debt Cost (Excluding Miscellaneous Debt)
Bonds, Notes, & Debentures	83.61%	7.32%	6.12%
ETCs	16.31%	6.84%	1.12%
CSAs	0.08%	7.14%	0.01%
Subtotal	100.00%	-----	7.25%
Flotation Cost	-----	-----	0.15%
Weighted Average Cost of Debt	-----	-----	7.40%

Table 9

Calculation of Market Value and Weights of Common Equity

Railroad	Average Market Value (000)	Average Market Weight
Burlington Northern	\$7,044,042.1	15.70
Conrail	4,895,006.9	10.91
CSX	8,433,400.1	18.80
Illinois Central	1,530,132.7	3.41
Kansas City Southern	1,728,760.4	3.85
Norfolk Southern	9,170,574.0	20.44
Union Pacific	12,063,766.8	26.89
COMPOSITE	\$44,865,683.0	100.00%

1 S.T.B.

Table 10

Calculation of Dividend Yields for Common Equity

**AAR Method
(Monthly Averages)**

Month	Composite Average
January	2.84%
February	2.80%
March	2.72%
April	2.66%
May	2.70%
June	2.71%
July	2.45%
August	2.38%
September	2.27%
October	2.26%
November	2.20%
December	2.25%
Average For Year	2.52%

1 S.T.B.

STB Method
(Annual Averages by Railroad)

Railroad	Average Weight in Composite	Average Dividend Yield	Weighted Dividend Yield
Burlington Northern	15.70%	1.87%	0.29%
Conrail	10.91%	2.61%	0.28%
CSX	18.80%	2.23%	0.42%
Illinois Central	3.41%	2.78%	0.09%
Kansas City Southern	3.85%	0.75%	0.03%
Norfolk Southern	20.44%	2.97%	0.61%
Union Pacific	26.89%	2.96%	0.80%
Composite Average For Year	100.00%		2.52%

Table 11

Calculation of Truncated Growth Rates

Railroad	Average Weight In Composite	Truncated Average Growth Rate	Contribution To Truncated Average
Burlington Northern	15.70%	11.18%	1.76%
Conrail	10.91%	11.11%	1.21%
CSX	18.80%	11.26%	2.12%
Illinois Central	3.41%	11.53%	0.39%
Kansas City Southern	3.85%	13.48%	0.52%
Norfolk Southern	20.44%	9.70%	1.98%
Union Pacific	26.89%	10.07%	2.71%
COMPOSITE	100.00%		10.69%

1 S.T.B.

Table 12

Calculation of Nontruncated Growth Rates

Railroad	Average Weight In Composite	Nontruncated Average Growth Rate	Contribution To Nontruncated Average
Burlington Northern	15.70%	11.23%	1.76%
Conrail	10.91%	11.10%	1.21%
CSX	18.80%	11.17%	2.10%
Illinois Central	3.41%	11.73%	0.40%
Kansas City Southern	3.85%	13.59%	0.52%
Norfolk Southern	20.44%	9.70%	1.98%
Union Pacific	26.89%	10.28%	2.76%
COMPOSITE	100.00%		10.74%

Table 13

Computation of the Cost of Common Equity

Dividend Yield	2.52%	
Dividend Yield Times 1.5 Growth Rate	2.52% times 1.0535	2.66%
Growth Rate		10.69%
Cost of Equity		13.35%
ROUNDED COST OF EQUITY		13.4%

Table 14

Computation of Cost & Market Value of Preferred Stock

Railroad	Div \$	Value Per Share	Div. Yield	Shares	Market Value (000)	Market Weight	Weighted Yield
Conrail	2.16	\$71.28	3.03%	9,805,452	\$698,932.62	94.20%	2.85%
Kansas City Southern	1.00	16.08	6.22%	242,837	3,905.26	0.53%	0.03%
Norfolk Southern	2.60	39.69	6.55%	985,328	39,096.08	5.27%	0.35%
COM- POSITE					\$741,945.11	100.00%	3.23%

Table 15

Computation of Capital Structure Mix

Type of Capital	Market Value (000)	Weight
Debt (Including Capitalized Leases and Miscellaneous Debt)	\$16,021,746	26.00%
Preferred Equity	741,945	1.20%
Common Equity	44,865,683	72.80%
TOTAL	61,629,374	100.00%

1 S.T.B.

Table 16

Cost of Capital Computation

Type of Capital	Cost (Rounded)	Weight (Rounded)	Weighted Average
Long-Term Debt	7.4%	26.0%	1.92%
Preferred Equity	3.2%	1.2%	0.04%
Common Equity	13.4%	72.8%	9.75%
COMPOSITE COST OF CAPITAL		100.0%	11.71%
ROUNDED			11.7%