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Ms. Cynthia T. Brown
Chief, Section of Administration
Office of Proceedings
Surface Transportation Board
395 E Street, S.W.
Washington, DC 20423

Re: STB Docket No. EP 552 (Sub-No. 22), *Railroad Revenue Adequacy—2017 Determination, et al.*

Dear Ms. Brown:

Attached please find the Reply Comments of the Association of American Railroads (AAR) in the above captioned proceedings. A copy of the same on a flash drive, along with the AAR's underlying workpaper, will be hand-delivered for the Board's convenience. A copy of the workpaper will be made available upon request to other participants in the proceedings.

Respectfully submitted,

Timothy J. Strafford
Counsel for the Association of
American Railroads

BEFORE THE
SURFACE TRANSPORTATION BOARD

STB Ex Parte No. 552 (Sub-No. 22)

RAILROAD REVENUE ADEQUACY –
2017 DETERMINATION

STB Ex Parte No. 558 (Sub-No. 21)

RAILROAD COST OF
CAPITAL – 2017

STB Ex Parte No. 750

UNIFORM RAILROAD COSTING SYSTEM –
2017 CALCULATIONS

REPLY COMMENTS OF THE
ASSOCIATION OF AMERICAN RAILROADS

Pursuant to the decisions served on July 27, 2018 and August 10, 2018, by the Surface Transportation Board ("STB" or "Board") in these proceedings, the Association of American Railroads ("AAR") submits these reply comments.[1] In opening comments filed on September 5, 2018, the AAR agreed with the Board that one-time accounting adjustments required of the railroads related to the valuation of deferred taxes resulting from the Tax Cuts and Jobs Act

[1] The railroads, through the AAR, filed the information and supporting documents that were required by the Board on August 16, 2018. Specifically, the Board directed the railroads to file figures with the accounting impacts of the deferred tax revaluations removed for Line Nos. 1 and 12 of Schedule 250; Line No. 48 of Schedule 200; and the "Net Income" and "Deferred Taxes" lines, including supporting documentation, of the cash flow calculation in the Morningstar/Ibbotson multi-stage discounted cash flow model ("MSDCF") used in the cost of capital determination.

would have distorting effects on the financial performance of the railroads in 2017 and that regulatory adjustments would be consistent with the Board's governing statute and past practice to make the Board's annual determinations and calculations more representative of the rail carriers' actual financial state for 2017.[2] The AAR noted that net income and net railway operating income as reported in 2017 are distorted by a one-time non-cash adjustment made necessary by tax reform and Generally Accepted Accounting Principles ("GAAP"). The AAR pointed out that without the Board's proposed adjustments, the Board's regulatory calculations would be based on dramatically increased net income values in a year when measures of revenue and cashflow were largely flat or negative.[3]

The only other party to comment on the Board's proposal was the Western Coal Traffic League ("WCTL"). WCTL agreed that the Board should adjust the end-of-year deferred tax balances for 2017 in URCS and supported the Board's proposal to adjust the cash flows in the Morningstar/Ibbotson MSDCF used in the cost-of-equity component of the cost of capital. WCTL nonetheless objects, however, to the Board's proposal with regard to the 2017 annual revenue adequacy determination and instead asserts that the Board should use a 21% tax rate to value deferred tax credits in the 2017 revenue adequacy determination.

At first glance, WCTL's position seems to be internally inconsistent on its face. WCTL acknowledges that railroads did not actually pay a 21% federal tax rate in 2017 and that increases in net income that result for revaluing deferred taxes are non-cash adjustments. WCTL Comments at 2. Nonetheless, WCTL would have the Board include those adjustments in the

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[2] *See, e.g.,* 49 U.S.C. § 11161 ("The Board shall periodically review its cost accounting rules and shall make such changes as are required to achieve the regulatory purposes of this part."); 49 U.S.C. § 10101(13). *See also R.R. Revenue Adequacy—1988 Determination*, 6 I.C.C.2d 933, 947-949 (1990).

[3] For this reason, individual rail carriers advocated to the agency that the impact of tax reform should be treated as an extraordinary item under the Board's Uniform System of Accounts.

2017 revenue adequacy determination and beyond. WCTL Comments at 10-13. On the one hand, WCTL argues for the 35% tax rate to be applied in 2017 for URCS. WCTL Comments at 4. On the other hand, WCTL argues that the Board should use a 21% rate for revenue adequacy purposes. WCTL Comments at 14. Beyond these obvious inconsistencies, however, there is one internal theme to WCTL's position in these and other proceedings: WCTL simply advocates for whatever mathematical adjustment it perceives to be in its short-term interest. The Board should see past this naked self-interest and proceed with its proposal.

WCTL attempts to justify differing treatment of deferred taxes for cost of capital and revenue adequacy purposes by claiming that such treatment is justified by the two determinations' "different nature and purpose." WCTL Comments at 8. But the Board's cost of capital determination is used *directly in* the annual revenue adequacy determination. WCTL seeks to characterize the revenue adequacy determination – considering which railroads, if any, earned a return on net investment in 2017 that exceed the railroad industry's cost of capital in that year – as backward looking, and that very same cost of capital calculation as forward looking because the MSDCF attempts to estimate the cash flows the companies will receive in the present and the future, discounted back to present value. What WCTL fails to note is that the MSDCF does that by using current historical data and applying growth rates, not by trying to calculate future cash flows based on future tax rates.[4] If anything, WCTL has it exactly

[4] The Morningstar/Ibbotson MSDCF model uses an initial cash flow and terminal cash flow as inputs. The initial cash flow is defined as income before extraordinary items minus capital expenditures plus depreciation plus deferred taxes. This information comes from the carriers' SEC filings. In the initial stage, the model subtracts out the accounting of deferred taxes by adding the large negative number for the value of deferred taxes. That is, the Board's proposal does not affect the cash flow in 2017. The value of the terminal cash flow is affected, though, because that calculation assumes that in the third stage of the model (years 11 on), depreciation equals capital expenditures, and deferred taxes are zero. Thus, in the third stage, the large negative valuation of deferred taxes is no longer subtracted out. The Board's proposal would recalculate the terminal cash flow.

backwards. WCTL would have the Board value deferred tax credits for revenue adequacy in 2017 based on a 21% corporate tax rate when the tax rate was actually 35% and at the same time would have the Board value deferred tax credits at 35% in the terminal cash flow in 2028 (year 11 of the MSDCF) in its cost of capital estimate.

WCTL also tries to justify more favorable revenue adequacy treatment by noting that revenue adequacy is a long-term concept. While the revenue adequacy constraint announced in *Coal Rate Guidelines* is indeed a long-term concept, the annual revenue adequacy determination at issue in *Railroad Revenue Adequacy – 2017 Determination*, EP 552 (Sub-No. 22) decidedly is not. The Board's annual revenue adequacy determination, mandated by 49 U.S.C. 10704(a)(3), is a single-year snapshot of each railroad's financial condition. As the AAR pointed out in *Railroad Revenue Adequacy*, EP 722, this one-year focus is one of the several reasons that the annual determination is ill-suited to any consideration of the reasonableness of a particular rate. *See* AAR Comments, EP 722 at 32 (filed September 5, 2014). Moreover, the annual determination looks at an accounting rate of return based on the valuation of railroad assets based on depreciated book value rather than considering the economic rate of return based on the fair value of those assets. *See id.* at 8-9; Kalt V.S. 31.

WCTL attempts to suggest that the Board's revenue adequacy proposal would be a windfall for the railroads because "at least in retrospect, an excessive amount of future tax liability was recognized in earlier years." WCTL Comments at 12. While WCTL may be technically correct that the impact of a lower tax rate is that the future tax liability had been overstated, WCTL's assessment of the impact on revenue adequacy is incomplete. WCTL's observation is that if the railroads had previously known that the tax rate would be reduced, they would have reported lower deferred taxes in those years, and that would have resulted in higher

railway operating income, which is used in the Board's revenue adequacy calculations. But WCTL addresses only half of the picture when considering the impact of the railroads' future tax liability on the Board's calculations.

WCTL focuses exclusively on the effect of deferred taxes on the net railway operating income – the numerator of the calculation. But deferred taxes are also considered in determining the railroad's net investment base that serves as the denominator of the calculation. The Board currently deducts from the net investment base the railroad's accumulated deferred tax balance.[5] If the railroads had reported lower deferred taxes in each year, the accumulated balances would also have been lower, which would have resulted in smaller deductions to the net investment base, and thus increased the denominator used in the calculation.

WCTL suggests that because an excessive amount of future tax liability was accounted for in the past, knowing now that the tax rates in the future will be lower, there should be excess revenue adequacy "overages" that should be banked and spread out into the future. But as described above, there are multiple, offsetting effects of lower deferred taxes on the revenue adequacy calculation. The following provides a simple illustration of the impact of removing the "excessive amount of future tax liability," expanding upon WCTL's income-focused observations by flowing the adjustment through both the numerator and the denominator. If, in 2015 and in 2016, railroads had had a crystal ball and valued deferred taxes in those years at

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[5] *See Standards for Railroad Revenue Adequacy*, 3 I.C.C.2d 261 (1986), *aff'd sub nom. Consolidated Rail Corp. v. United States*, 855 F.2d 78 (3d Cir. 1988). As the AAR pointed out in EP 722, the Board's treatment of deferred taxes in the asset base has the effect of upwardly biasing the annual revenue adequacy determination. *See* AAR Comments, EP 722, at 10 (filed September 5, 2014). Though the Interstate Commerce Commission vacillated between including and excluding deferred taxes in the asset base, even the Court affirming the ICC's decision to exclude deferred taxes noted that "[g]iven the competition between the railroads and unregulated firms for capital, the railroads are substantially disadvantaged by being deprived of the opportunity to earn a return on the [deferred tax] funds in comparison to the unregulated firms, and therefore the incentive to all investors, including the railroads is to invest in the unregulated firms." *Consolidated Rail Corp. v. United States*, 855 F.2 78 (3rd Cir. 1988).

21% instead of 35%, most railroads would have been *less* revenue adequate in those years under the Board's calculations, not more, as shown in Table 1 below.[6]

Table 1

	2015			2016		
	STB Calculated ROI	With Deferred Tax Adjustment	*Diff*	STB Calculated ROI	With Deferred Tax Adjustment	*Diff*
BNSF	12.8%	11.9%	*-0.9%*	10.1%	9.4%	*-0.7%*
CSXT	9.0%	8.4%	*-0.6%*	8.6%	8.0%	*-0.6%*
CN/GTC	10.8%	10.1%	*-0.7%*	8.6%	8.1%	*-0.5%*
KCS	7.2%	7.5%	*0.3%*	6.2%	6.4%	*0.2%*
NS	9.0%	8.2%	*-0.8%*	9.2%	8.3%	*-0.9%*
CP/SOO	14.5%	13.2%	*-1.2%*	9.6%	9.1%	*-0.4%*
UP	15.5%	14.3%	*-1.3%*	13.4%	12.3%	*-1.1%*

The AAR, like WCTL, is not suggesting that the Board attempt to go back and restate past years and try to recalculate revenue adequacy findings. Such an action would be inconsistent with precedent and would undermine settled expectations, contrary to the Board's obligation to foster sound economic conditions in transportation under 49 U.S.C. § 10101a (5). *See Railroad Revenue Adequacy – 1988 Determination*, 6 I.C.C.2d 933, 949 (1990). Instead, the AAR is simply pointing out that WCTL's observations are at best incomplete, and the countervailing

[6] Table 1 summarizes the impact on the Board's 2015 and 2016 revenue-adequacy calculations of adjusting each carrier's deferred taxes to place them on a 21%-rate basis, based on figures submitted by the AAR in these proceedings on August 16, 2018. Table 2 to that submission identified the adjusted deferred tax balance that had been reported, and the amount removing the adjustment. The August 16 Table 2 indicates that at the 21% federal tax rate, deferred taxes would have been approximately 35% lower than what was reported based on the higher tax rate. For illustrative purposes, each carrier's Net Railway Operating Income and Net Investment Base were increased by the amount of the adjustment to the annual deferred taxes and the accumulated deferred taxes, respectively, and the adjusted Return on Investment calculated.

treatment of deferred taxes in the revenue adequacy calculation can cause potentially unexpected effects.

Finally, WCTL's suggestions regarding the cost of capital should be rejected as beyond the scope of the proposal under consideration here and without merit. WCTL's argument is nothing more than an attempt to resurrect its long-standing campaign to drive down the cost of equity by altering the growth rates in the Morningstar/Ibbotson MSDCF.[7] WCTL states without evidence that "[t]he analysts forecast the growth in earnings; those projected earnings encompass the gains from the reduction in [deferred tax liabilities] that result from the tax cut." WCTL Comments at 9. The MSDCF uses growth rates established by Wall Street analysts for investment purposes, and those analysts consider all relevant financial and economic considerations in developing their rates. If those growth rates were artificially inflated by the accounting treatment of deferred taxes, one would expect them to be markedly different from other years. But as demonstrated by the AAR in EP 558 (Sub-No. 21), *Railroad Cost of Capital – 2017*, the growth rates in 2017 were similar to past years, excepting the down years in the railroad industry of 2015 and 2016. *See* AAR Rebuttal Comments, EP 558 (Sub-No. 21) at 6-8 (filed June 1, 2018). Moreover, if WCTL was right, one would expect to see a dip in growth rates in 2018. But, the available analysts' growth rates in 2018 are higher than 2017, not lower. *See* Appendix A. Finally, WCTL has offered no support here for its request that the Board use Capital Asset Pricing Model ("CAPM") as the sole measure of the cost of equity. WCTL's

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[7] *Use of a Multi-Stage Discounted Cash Flow Model in Determining the Railroad Industry's Cost of Capital*, EP 664 (Sub-No. 1), slip op. at 8-10 (STB served Jan. 28, 2009); *Petition of the Western Coal Traffic League to Institute a Rulemaking Proceeding to Abolish the Use of the Multi-Stage Discounted Cash Flow Model in Determining the Railroad Industry's Cost of Equity Capital*, EP 664 (Sub-No. 2), slip op. at 13-14 (STB served Oct. 31, 2016); *Petition of the Western Coal Traffic League to Institute a Rulemaking Proceeding to Abolish the Use of the Multi-Stage Discounted Cash Flow Model in Determining the Railroad Industry's Cost of Equity Capital*, EP 664 (Sub-No. 2), slip op. at 6 (STB served Apr. 28, 2017).

current preference for CAPM as the model that produces the lower cost of equity estimation under today's market conditions does not undercut the Board's sound reasoning in adopting the average of two models as its methodology adopted by notice and comment rulemaking.

Conclusion

The Board has correctly identified a one-time distortion caused by the accounting treatment of a large reduction in the corporate tax rate. The Board's proposal is a reasonable way to fulfill its statutory obligations and regulatory objectives by valuing deferred taxes in the calculation of cost of capital, revenue adequacy, and URCS all based on the tax rate that railroads actually paid throughout 2017.

Respectfully submitted,

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September 25, 2018

CERTIFICATE OF SERVICE

I hereby certify that on this 25th day of September, 2018, I have caused a copy of the foregoing to be served by first class mail, postage prepaid, on the following:

Dave Krautkremer
Soo Line Railroad Company
120 South 6th Street, Suite 700
Minneapolis, MN 55402

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

Kathleen Birch

Comparison of Growth Rates

	Analyst Growth Rates from IBES July 31, 2018								12/31/2017
Company	**Rate 1**	**Rate 2**	**Rate 3**	**Rate 4**	**Rate 5**	**Rate 6**	**Rate 7**	**Median**	**Median ****
CSX	18.30	25.64	12.00 *	28.30	26.06	12.00	--	**21.97**	**15.66**
KSU	16.34	11.70	--	--	--	--	--	**14.02**	**13.16**
NSC	14.30	18.51	15.00	17.40	17.83	--	--	**17.40**	**12.00**
UNP	20.19	12.00	17.50	19.80	20.58	--	--	**19.80**	**13.36**

* Latest review date for CSX Rate 3 was March 13, 2017.
** From Appendix L, Page 1, AAR Cost of Capital 2017 comments submitted April 20, 2018

Growth Rates for MSDCF July 31, 2018
CSX

Detail Estimates - Period Summary

Enter RIC : CSX.o **CSX Corp**

Measure : Earnings Per Share

Period : Long Term Growth

Currency: USD *(in millions except for per share items)*

	Ests	Mean	High	Low
Earnings Per Share	6	20.38	28.30	12.00
Filtered/Preliminary Mean**:	1	18.30	18.30	18.30
30 Day Ago Mean	6	18.89	27.90	12.00

	9/2017A	12/2017A	3/2018A	6/2018A	12/2017A
Reported	0.51	0.64	0.78	1.01	2.30
Surprise Mean	0.51	0.56	0.66	0.67	2.21
Surprise (%)	-0.65	13.74	18.90	16.69	3.88

* Only selected brokers below are included in the filtered mean

Check/Uncheck	Contributor	Analyst	Current Estimate	Current Estimate Date	Previous Estimate	Previous Estimate Date	Review Date
✓	Permission Denied 54992	Permission Denied	18.30 ↑	Jul 17, 18	13.80	Jan 16, 18	Jul 17, 18
	CREDIT SUISSE	Landry, Allison M	25.64 ↑	Jul 18, 18	24.30	Jul 09, 18	Jul 18, 18
	WELLS FARGO SECURITIES, LLC	Deak, Casey S	12.00	Mar 13, 17	NA	NA	Mar 13, 17
	Permission Denied 398138	Permission Denied	28.30 ↑	Jul 18, 18	27.90	Apr 17, 18	Jul 18, 18
	Permission Denied 392	Permission Denied	26.06 ↑	Jul 18, 18	24.00	Jul 08, 18	Jul 18, 18
	Permission Denied 32	Permission Denied	12.00 ↑	Apr 19, 17	10.00	Apr 13, 16	Jul 16, 18

Thomson Reuters – Eikon
8/2/2018

Growth Rates for MSDCF July 31, 2018
KSU

Detail Estimates - Period Summary

Enter RIC : KSU **Kansas City Southern**

Measure : Earnings Per Share

Period : Long Term Growth

Currency: USD *(In millions except for per share items)*

	Ests	Mean	High	Low
Earnings Per Share	2	14.02	16.34	11.70
Filtered/Preliminary Mean**:	1	16.34	16.34	16.34
30 Day Ago Mean	2	14.56	17.41	11.70

	9/2017A	12/2017A	3/2018A	6/2018A	12/2017A
Reported	1.35	1.38	1.30	1.54	5.25
Surprise Mean	1.31	1.37	1.33	1.51	5.22
Surprise (%)	3.19	1.10	-2.15	1.65	0.65

* Only selected brokers below are included in the filtered mean

Check/Uncheck	Contributor	Analyst	Current Estimate	Current Estimate Date	Previous Estimate	Previous Estimate Date	Review Date
✔	CREDIT SUISSE	Landry, Allison M	16.34 ↑	Jul 20, 18	16.25	Jul 09, 18	Jul 20, 18
	Permission Denied 398136	Permission Denied	11.70 ↓	Jun 14, 18	12.70	Jan 22, 18	Jun 14, 18

Thomson Reuters – Eikon
8/2/2018

Growth Rates for MSDCF July 31, 2018
NSC

Detail Estimates - Period Summary

Enter RIC : NSC **Norfolk Southern Corp**

Measure : Earnings Per Share

Period : Long Term Growth

Currency: USD *(in millions except for per share items)*

	Ests	Mean	High	Low
Earnings Per Share	5	16.61	18.51	14.30
Filtered/Preliminary Mean** :	1	14.30	14.30	14.30
30 Day Ago Mean	5	15.04	17.99	12.00

	9/2017A	12/2017A	3/2018A	6/2018A	12/2017A
Reported	1.75	1.69	1.93	2.50	6.61
Surprise Mean	1.64	1.57	1.77	2.33	6.50
Surprise (%)	6.48	7.69	9.00	7.42	1.66

* Only selected brokers below are included in the filtered mean

Check/Uncheck	Contributor	Analyst	Current Estimate	Current Estimate Date	Previous Estimate	Previous Estimate Date	Review Date
✔	Permission Denied 54992	Permission Denied	14.30 ↑	Jul 25, 18	13.20	Jan 24, 18	Jul 25, 18
	CREDIT SUISSE	Landry, Allison M	18.51 ↑	Jul 25, 18	18.22	Jul 09, 18	Jul 25, 18
	Permission Denied 32	Permission Denied	15.00	Apr 13, 16	NA	NA	Jul 30, 18
	Permission Denied 398136	Permission Denied	17.40 ↑	Jul 16, 18	17.00	Apr 25, 18	Jul 16, 18
	Permission Denied 392	Permission Denied	17.83 ↑	Jul 25, 18	8.00	Oct 03, 88	Jul 25, 18

Thomson Reuters – Eikon
8/2/2018

Growth Rates for MSDCF July 31, 2018
UNP

Detail Estimates - Period Summary

Enter RIC : UNP **Union Pacific Corp**

Measure : Earnings Per Share

Period : Long Term Growth

Currency: USD *(in millions except for per share items)*

	Ests	Mean	High	Low
Earnings Per Share	5	18.01	20.58	12.00
Filtered/Preliminary Mean**:	1	20.19	20.19	20.19
30 Day Ago Mean	5	17.65	20.61	12.00

	9/2017A	12/2017A	3/2018A	6/2018A	12/2017A
Reported	1.50	1.53	1.68	1.98	5.79
Surprise Mean	1.49	1.54	1.66	1.95	5.80
Surprise (%)	0.60	-0.82	1.33	1.54	-0.25

* Only selected brokers below are included in the filtered mean

Check/Uncheck	Contributor	Analyst	Current Estimate	Current Estimate Date	Previous Estimate	Previous Estimate Date	Review Date
✔	CREDIT SUISSE	Landry, Allison M	20.19 ↓	Jul 19, 18	20.41	Jul 12, 18	Jul 19, 18
	WELLS FARGO SECURITIES, LLC	Deak, Casey S	12.00 ↓	Apr 30, 18	15.00	Dec 16, 09	Jul 24, 18
	Permission Denied 54992	Permission Denied	17.50 ↑	Jul 19, 18	16.50	Apr 26, 18	Jul 19, 18
	Permission Denied 398136	Permission Denied	19.80 ↑	Jul 16, 18	18.80	May 30, 18	Jul 16, 18
	Permission Denied 392	Permission Denied	20.58 ↑	Jul 20, 18	20.55	Jul 08, 18	Jul 20, 18

Thomson Reuters – Eikon
8/1/2018

Growth Rates for MSDCF July 31, 2018
(Close Up)

CSX Corp

Currency: USD *(in millions except for per share items)*

Mean	High	Low		9/2017\
20.38	28.30	12.00	Reported	0.51
18.30	18.30	18.30	Surprise Mean	0.51
18.89	27.90	12.00	Surprise (%)	-0.65

Current Estimate	Current Estimate Date	Previous Estimate	Previous Estimate Date	Review Date
18.30 ↑	Jul 17, 18	13.80	Jan 16, 18	Jul 17, 18
25.64 ↑	Jul 18, 18	24.30	Jul 09, 18	Jul 18, 18
12.00	Mar 13, 17	NA	NA	Mar 13, 17
28.30 ↑	Jul 18, 18	27.90	Apr 17, 18	Jul 18, 18
26.06 ↑	Jul 18, 18	24.00	Jul 08, 18	Jul 18, 18
12.00 ↑	Apr 19, 17	10.00	Apr 13, 16	Jul 16, 18

Kansas City Southern

Currency: USD *(in millions except for per share items)*

Mean	High	Low		9/2017\
14.02	16.34	11.70	Reported	1.35
16.34	16.34	16.34	Surprise Mean	1.31
14.56	17.41	11.70	Surprise (%)	3.19

Current Estimate	Current Estimate Date	Previous Estimate	Previous Estimate Date	Review Date
16.34 ↑	Jul 20, 18	16.25	Jul 09, 18	Jul 20, 18
11.70 ↓	Jun 14, 18	12.70	Jan 22, 18	Jun 14, 18

Growth Rates for MSDCF July 31, 2018
(Close Up)

Norfolk Southern Corp

Currency: USD *(in millions except for per share items)*

Mean	High	Low		9/2017\
16.61	18.51	14.30	Reported	1.75
14.30	14.30	14.30	Surprise Mean	1.64
15.04	17.99	12.00	Surprise (%)	6.48

Current Estimate	Current Estimate Date	Previous Estimate	Previous Estimate Date	Review Date
14.30 ↑	Jul 25, 18	13.20	Jan 24, 18	Jul 25, 18
18.51 ↑	Jul 25, 18	18.22	Jul 09, 18	Jul 25, 18
15.00	Apr 13, 16	NA	NA	Jul 30, 18
17.40 ↑	Jul 16, 18	17.00	Apr 25, 18	Jul 16, 18
17.83 ↑	Jul 25, 18	8.00	Oct 08, 88	Jul 25, 18

Union Pacific Corp

Currency: USD *(in millions except for per share items)*

Mean	High	Low		9/2017\
18.01	20.58	12.00	Reported	1.50
20.19	20.19	20.19	Surprise Mean	1.49
17.65	20.61	12.00	Surprise (%)	0.60

Current Estimate	Current Estimate Date	Previous Estimate	Previous Estimate Date	Review Date
20.19 ↓	Jul 19, 18	20.41	Jul 12, 18	Jul 19, 18
12.00 ↓	Apr 30, 18	15.00	Dec 16, 09	Jul 24, 18
17.50 ↑	Jul 19, 18	16.50	Apr 26, 18	Jul 19, 18
19.80 ↑	Jul 16, 18	18.80	May 30, 18	Jul 16, 18
20.58 ↑	Jul 20, 18	20.55	Jul 08, 18	Jul 20, 18