

BEFORE THE
SURFACE TRANSPORTATION BOARD

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RAILROAD COST OF CAPITAL –) EP 558 (Sub-No. 28)
2024

**REPLY STATEMENT
OF THE WESTERN COAL TRAFFIC LEAGUE**

WESTERN COAL TRAFFIC LEAGUE

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Dated: May 5, 2025

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BEFORE THE
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REPLY STATEMENT OF THE WESTERN COAL TRAFFIC LEAGUE

Pursuant to the notice that the Surface Transportation Board (“STB” or “Board”) served in the above-captioned proceeding on January 10, 2025, as modified March 5, 2025, the Western Coal Traffic League (“WCTL”)¹ hereby replies to the opening statement that the Association of American Railroads (“AAR” or “Railroads”) submitted on April 14, 2025.

I. INTRODUCTION AND SUMMARY

For present purposes, WCTL finds no significant errors in the AAR’s mathematical calculations implementing the Board’s established cost of capital methodology.² Nonetheless, the Board’s methodology continues to yield an inaccurate and substantially overstated cost of capital (“COC”) due to its miscalculation of the cost of equity (“COE”) component. The COE error stems from flaws, especially in the Multi-

¹ WCTL is a voluntary association, whose regular membership consists entirely of shippers of coal mined west of the Mississippi River that is transported by rail. WCTL’s members are: Ameren Missouri, Arizona Electric Power Cooperative, Inc., Austin Energy (City of Austin, Texas), CLECO Corporation, CPS Energy, Entergy Services, Inc., Evergy, Inc., Lower Colorado River Authority, MidAmerican Energy Company, Minnesota Power, Nebraska Public Power District, and Western Fuels Association, Inc.

² WCTL did find and advise the AAR of documentation errors for the MSDCF growth rates for NSC and UNP. The AAR appears to have submitted a corrected substitute filing on April 15, 2025.

Stage Discounted Cash Flow (“MSDCF”) model, and also in the implementation of the Capital Asset Pricing Model (“CAPM”).

Even if the MSDCF were properly specified for the railroad industry (and it is not), its results would still be tainted by the use of improper inputs, particularly earnings per share (“EPS”) growth rates that are distorted by stock repurchases or buybacks and other defects. An additional and related problem with the MSDCF is that the analyst reports for the growth rate figures are not available, and the calculations lack transparency. Even frequent expert witnesses for railroads have recently noted the implausibility of the MSDCF growth rates.

The AAR’s resulting overall cost of capital figure of 10.68% is far higher than the 7.1% figure calculated by Morgan Stanley (whose values the STB has relied upon elsewhere), and even the 8% utilized by CSX in its annual reports for 2023 and 2024. CSX’s 8% figure is easily approximated utilizing readily available inputs.

There is thus a growing consensus that the Board’s methodology does not yield realistic results. While the Board’s resources are constrained and it may perceive no immediate legal obligation to consider such matters in this particular proceeding, the Board should always be interested in the soundness of its methods, especially for a matter as consequential as the cost of capital. A review of the Board’s methodology is in order.

II. THE AAR’S COSTS OF EQUITY AND CAPITAL DEVIATE SHARPLY FROM RESPECTED BENCHMARKS

Railroads are said to compete with firms in other industries for investor capital. To that extent, an appropriate starting point for reviewing the railroad COE is to consider

the expected return that railroads and equities generally need to offer in order to attract or retain investment.³

In particular, Morgan Stanley continues to present weighted average cost of capital values for individual railroads. The most timely and relevant for purposes of the 2024 COC are those from its *4Q24 Preview: Time to Close the Perception Gap* (Jan. 6, 2025, before the railroads disclosed their results for 4Q24). Relevant excerpts from the report are attached as Exhibit A. The following table presents the figures and then applies the AAR’s weighting of the carriers in the composite sample by equity market capitalization:

Table 1			
Morgan Stanley COC Values for Year-End 2024			
Carrier	MS COC	Weight	Weighted
CSX	7.30%	24.35%	1.78%
NS	7.10%	20.84%	1.48%
UP	6.90%	54.81%	3.78%
All		100.00%	7.04%

³ The railroads in the composite sample have not needed to raise outside equity capital for many years and instead rely on revenues extracted from customers. The portion of those revenues devoted to shareholder distributions (dividends and buybacks) far exceeds that used for capital expenditures. Reductions in the COE are thus unlikely to result in diversion of funds from capital expenditures to non-railroad expenditures, particularly as the railroads have already reduced those expenditures through their pursuit of Precision-Scheduled Railroading (“PSR”) to reduce their operating ratios, at the expense of growing their volumes. Most railroad rates are not regulated (the same reason that “circularity” in the MSDCF growth estimates is supposedly not a concern). The extraordinary returns that the railroads continue to extract provide more than ample incentive for the railroads not to kill their “golden goose.” For example, UP’s return on equity in 2024 exceeded 42%. UP Annual Report for 2024 at 30, <https://investor.unionpacific.com/static-files/298c6a8f-fbca-4638-ac75-f80f2b9b7d10>.

The calculation is presented at WCTL’s e-workpaper at tab “Table 1.”⁴ The Morgan Stanley values are virtually the same as for 2023, 2022, 2021, and prior years that WCTL has previously presented, showing stability in the cost of capital as perceived by the financial and investment community, notwithstanding recent changes in such items as interest rates and inflation.

The Morgan Stanley values are particularly probative since the Morgan Stanley estimates were relied upon by CP, CN, KCS, and the Board itself in finding that the CP/KCS merger was fair to the stockholders of both entities. *E.g.*, FD 36500, *CP/KCS Merger* (STB served March 15, 2023), at 150.

The Morgan Stanley average COC can be closely approximated using readily available and very credible data. For this purpose, the appropriate methodology is the CAPM, which is generally used by investors. *E.g.*, Jonathan B. Berk and Jules H. van Binsbergen, “*How Do Investors Compute the Discount Rate? They Use the CAPM,*” *Financial Analysts Journal*, Vol. 73, No. 2, Second Quarter 2017, 25-32. To apply the CAPM, WCTL has utilized the AAR’s capital (debt/equity), structure, cost of debt, and beta, but in conjunction with the MRP and RFR recommended by Professor Damodaran of the Stern School of Business at New York University as of December 2024, available

⁴ The Morgan Stanley figures may possibly reflect a tax shield for debt. If so, the effect is very modest, as the shield is calculated as weight of debt (16.26%) times cost of debt (5.24%) times the statutory tax rate (21%), which is less than 0.2% (0.00178925).

at <https://pages.stern.nyu.edu/~adamodar/pc/implprem/ERPbymonth.xlsx>.⁵ The resulting cost of capital is 7.57% as follows:

Table 2				
Derivation of Cost of Capital for Industry Composite Sample Using Damodaran MRP and RFR (10-year) and AAR RFR, Beta, Capital Structure, and Cost of Debt				
CAPM Cost of Equity		Industry Cost of Capital		
Risk-Free Rate	4.18%	Component	Weight	Cost
Market-Risk Premium	4.07%	Debt	17.26%	0.92%
Beta (Composite Sample)	0.9478	Equity	82.74%	6.65%
Cost of Equity	8.04%	Average COC		7.57%

The calculation is presented at WCTL’s e-workpaper at tab “Table 2.”

In that regard, the 7.31% market risk premium (“MRP”) utilized by the AAR under the Board’s methodology is problematic. It stems from 1926 and thus covers nearly a hundred years, rendering it largely insensitive to recent trends and developments, including changes in interest rates, inflation, market returns, and investor expectations. The AAR combines the 4.50% RFR (based on the yield on 20-year U.S. Treasury bonds, AAR Appendix H) with a 7.31% MRP to yield a standard return for equities of 11.81%, which MRP is then adjusted downwards slightly by the 0.9478 railroad beta for the composite sample to yield a CAPM COPE of 11.43%.

The AAR’s posited general equity return far exceeds the returns for U.S. equities projected by mainstream and well-respected investment firms. In particular, Morningstar

⁵ Professor Damodaran recommends use of an implied equity risk premium based on the yield of the 10-year United States Treasury Bond as the risk-free rate. It is appropriate to use risk premium and risk-free rate that are consistent with each other.

reported, on January 8, 2025 (before recent activity), estimated United States equity returns of over the next ten years of 6.2% from BlackRock, 6.7% from JP Morgan (for a 10-15 year horizon) for large caps), 5.6% from Morningstar itself, 6.0% from Schwab, and 2.8%-4.8% from Vanguard. See <https://www.morningstar.com/portfolios/experts-forecast-stock-bond-returns-2025-edition>. The Board's 11.43% projected return is substantially greater than, in some cases double, what mainstream investors can reasonably expect to obtain. Deviations of that magnitude should not be ignored.

Further confirmation of the unreasonableness of the AAR's COC can be found by considering the 10-K for 2024 of one of its Class I members and a member of the composite sample, CSX. As with its 2023 report, CSX uses the non-GAAP concept of "economic profit" to address return in excess of "an 8% required return," which was the figure it used for its long-term cost of capital in its 2023 report. 2024 10-K at p. 34, https://s2.q4cdn.com/859568992/files/doc_financials/2024/ar/2024-10-K.pdf; 2023 10-K at 33, https://s2.q4cdn.com/859568992/files/doc_financials/2023/q4/913a6f6f-7cbe-4481-9873-39ab722ebec0.pdf. CSX uses economic profit as an element of its incentive compensation formula for its executives. 2025 Proxy Statement at 89, https://s2.q4cdn.com/859568992/files/doc_financials/2025/ar/CSX-2025-Proxy-Statement.pdf. CSX's identification and use of an 8% cost of capital renders the Board's use of a 10.68% cost of capital, a third higher, even more suspect.

The deviation between the cost of capital values adduced under the Board's methodology and those utilized by investors, the railroads, and the Board itself elsewhere is more than sufficient to support a Board-initiated rulemaking proceeding.

III. THE MSDCF CALCULATIONS AND INPUTS REMAIN FLAWED BY BUYBACKS AND OTHER DEFECTS

The increase in the AAR's COC from 2023 to 2024 of 98 basis points arises largely from the increase in MSDCF COE. The MSDCF in 2023 was 10.44%, but the 2024 value is 12.20%, an increase of 176 basis points. A key factor in that increase is the increase in earnings per share ("EPS") growth rates, particularly the increase in the UP first-stage growth rate from 6.36% in 2023 to 10.6% in 2024, an increase of 67%.

As WCTL has previously explained, the MSDCF uses EPS forecasts to "grow" firm-wide cashflows in the first two stages. The problem is that the railroads in the composite sample engage in substantial stock repurchases (buybacks) that reduce their numbers of shares. The EPS growth rates are net of buybacks, meaning the firm-wide growth rates are lower than the EPS growth rates. Using the EPS growth rates to grow firm-wide cashflows causes the MSDCF to overstate firm-wide growth. The overstated firm-wide growth results in an overstated COE, which is calculated as the discount rate needed for future cashflows to match the net present value represented by the current firm-wide market capitalization.

The AAR materials indicate that EPS growth estimates are made by analysts, but they or their firms denied permission for them to be identified.⁶ Accordingly, it is not possible to review the forecasts to quantify the extent to which buybacks influenced the EPS growth projections or the extent to which the projected growth is already

⁶ Two analysts calculated qualifying growth rate projections for CSX and NS, but only one of those analysts made a qualifying forecast for UP.

incorporated elsewhere in the initial cashflows, thereby creating a double-count. The MSDCF calculations lack transparency because they rely on non-public data, which elsewhere renders data unacceptable for Board use.

Nonetheless, the railroads have made no secret of their use of buybacks to boost EPS. On September 17, 2024, on the second day of the Board’s hearing in EP 775, *Growth in the Freight Rail Industry*, CSX CEO Joseph R. Hinrichs testified that railroads engage in buybacks in order to increase earnings per share:

And from an investor standpoint, absent all this other noise, what investors want is EPS growth.

There [*sic*] could come many different ways; earnings growth, share reduction, both. But earnings growth can come from many different ways. Cost reduction, but also revenue growth and margin expansion.

Tr. 603:13-20. The difference is that “earnings growth,” “cost reduction,” “revenue growth,” and “margin growth” all increase actual earnings. Reducing shares through buybacks is different in that the earnings numerator is unchanged, and the EPS increase occurs solely by reducing the shares denominator, which causes the MSDCF distortion.

The railroads themselves have submitted testimony that their own MSDCF growth rates are unrealistic and unlikely to be believed by the market for five years, let alone the ten years posited in the MSDCF. In *Atchison, Topka & Santa Fe Ry. Co.—Operating Rights—Southern Pac. Transp. Co.*, F.D. 22218, UP’s expert witness, Dr. Divya Mathur, submitted an Opening Verified Statement on May 3, 2024, stating that UP’s system-wide profits grew by a compound annual growth of 3.2% in the decade between 2013 and 2022. Mathus VS at 58. The 10.6% EPS growth rate for 2024 is triple what UP actually

achieved for that decade in terms of firm-wide earnings. Frequent railroad expert witnesses Michael R. Baranowski and Nathan S. Zebrowski, testifying in the proceeding on behalf of BNSF, noted in their Reply Verified Statement dated March 14, 2025, that the recent MSDCF growth rates for UP could not be reconciled to UP's actual earnings growth rates:

Table 7⁸¹
Comparison of Forecast and Actual Earnings Growth Rates Through 2024 in UP's 2021 and 2022 MSDCF Models

MSDCF Year	Projected Annual Earnings Growth Rate Through 2024	Actual Annual Earnings Growth Rate Through 2024
2021	17.0%	1.3%
2022	9.6%	-1.0%
Average	13.3%	0.1%

Baranowski/Zebrowski Reply VS at 50. The point is not merely that projections are only projections, but that EPS and firm-wide earnings are not interchangeable.

The Board should not be relying on a methodology, inputs, and values that even AAR members do not believe is realistic or accurate.

IV. CONCLUSION

Adherence to the Board's established methodology is not sufficient to establish that the resulting COE and COC values for 2024 are accurate or even plausible. On the contrary, the CAPM values rest on an assumed return for the market as a whole that vastly overstates the equity returns that investors can reasonably expect to achieve or demand. The MSDCF inputs are even more problematic in that EPS growth rates are an

inappropriate input. The ultimate results are not believed by analysts, respected expert witnesses, and even the railroads themselves, and the Board actually utilizes the values that WCTL recommends for other purposes.

The flaws in and lack of basic plausibility of its cost of capital methodology should be worthy of the Board's attention, even in the current environment.

Respectfully submitted,

WESTERN COAL TRAFFIC LEAGUE

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Dated: May 5, 2025

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CERTIFICATE OF SERVICE

I hereby certify that on this 5th day of May 2025, I have caused true and accurate copies of the foregoing Reply Statement of the Western Coal Traffic League to be served upon all parties on the service list in EP 558 (Sub-No. 28) by first class mail, postage prepaid, or by more expeditious means.

/s/ Robert D. Rosenberg

EXHIBIT A

Excerpts from Morgan Stanley's Report
on the Transportation Industry dated January 6, 2025

January 6, 2025 06:01 AM GMT

Freight Transportation | North America

4Q24 Preview: Time to Close the Perception Gap

4Q results probably have the best setup in the last 2 years. While companies are likely to talk down 1Q on seasonality, we see data momentum continuing into 2025. This gap between improving fundamentals and lagging investor/industry perception of the cycle needs to close early in 2025.

Key Takeaways

- We believe a solid peak season and improving fundamentals will be at least somewhat supportive of numbers in 4Q but focus will be on 1Q25 guidance/commentary.
- Our initial conversations indicate that mgmt. teams are likely to talk about a step down in 1Q and warn against extrapolating 4Q strength. We disagree.
- If mgmt. teams claim they do not see momentum, they may need to explain why that is in the face of improving datapoints or risk being accused of sandbagging.
- The gap between the perception/narrative of the continued sluggish cycle and the reality of sharply improving datapoints needs to close one way or another.
- Our key calls are GXO (-), UPS (-/?), KNX (+/?), CP(+) and high-expectation LTLs (SAIA/XPO/ODFL).

For the first time in many quarters, Freight Transportation companies may actually have something to show for their efforts in 4Q. After expecting nearly unanimous misses for most of 2024, we expect 8 beats, 10 misses and 5 inline results in 4Q. **We believe a solid peak season and improving fundamentals will be at least somewhat supportive of numbers,** even if not good enough to break out the champagne. However, **the key focus will be 1Q25 communication/guidance. Our initial conversations indicate that mgmt. teams are likely to talk about a step down in 1Q on typical seasonality and warn against extrapolating 4Q strength. We disagree.** We note that our TLF index has beat seasonality for 5 of the last 6 readings of the year and ended December at the highest level since April 2022 and marks the highest end of December in 4 years. Similarly, truck spot rates are at a ~2-year high. [Our surveys show restocking interest](#) as well from Shippers. As such, **if mgmt. teams state that they do not see much momentum for earnings into 2025, they will need to explain why that is so in the face of improving datapoints or risk being accused of sandbagging.** Investor perception around the stocks is similarly polarized with the stocks giving up (and then some) their immediate post-election gains but largely remaining above lows from earlier this year. **The gap between the perception/narrative of the continued sluggish cycle and the reality of sharply improving datapoints needs to close one way or another this earnings season.**

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FREIGHT TRANSPORTATION		
North America		
Industry View	In-Line	
WHAT'S CHANGED		
RXO Inc (RXO.N)	From	To
Price Target	\$26.00	\$27.00
ArcBest Corp (ARCB.O)	From	To
Price Target	\$170.00	\$160.00
J.B. Hunt Transport Services Inc. (JBHT.O)	From	To
Price Target	\$159.00	\$161.00
C.H. Robinson Worldwide Inc. (CHRW.O)	From	To
Price Target	\$70.00	\$71.00
Saia, Inc. (SAIA.O)	From	To
Price Target	\$268.00	\$270.00
Union Pacific Corp. (UNP.N)	From	To
Price Target	\$215.00	\$219.00
GXO Logistics, Inc (GXO.N)	From	To
Price Target	\$70.00	\$63.00
Landstar System Inc (LSTR.O)	From	To
Price Target	\$143.00	\$145.00
CSX Corporation (CSX.O)	From	To
Price Target	\$30.00	\$29.00

Please see price target changes in [Exhibit 1](#)

Morgan Stanley does and seeks to do business with companies covered in Morgan Stanley Research. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of Morgan Stanley Research. Investors should consider Morgan Stanley Research as only a single factor in making their investment decision.

For analyst certification and other important disclosures, refer to the Disclosure Section, located at the end of this report.

Risk Reward – CSX Corporation (CSX.O)

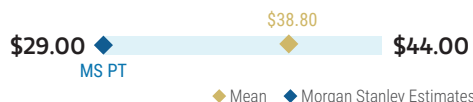
New Opportunities Meet Structural Risks

PRICE TARGET \$29.00

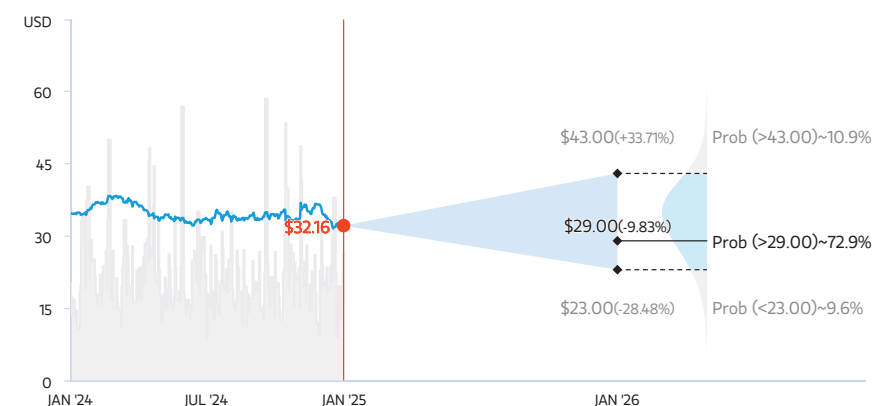
We use a 10-year DCF assuming 7.3% WACC and terminal cash flow perpetual growth rate of 1.5%. Our DCF valuation implies a fwd P/E of ~16x, which is modestly below CSX's historical average. We believe US rails deserve to trade at discounts to historical valuation due to structural growth and pricing headwinds relative to history.

Consensus Price Target Distribution

Source: Refinitiv, Morgan Stanley Research



RISK REWARD CHART AND OPTIONS IMPLIED PROBABILITIES (12M)



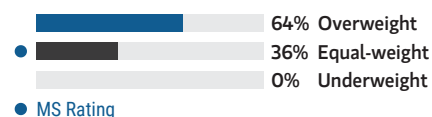
Key: — Historical Stock Performance ● Current Stock Price ◆ Price Target

Source: Refinitiv, Morgan Stanley Research, Morgan Stanley Institutional Equities Division. The probabilities of our Bull, Base, and Bear case scenarios playing out were estimated with implied volatility data from the options market as of 2 Jan 2025. All figures are approximate risk-neutral probabilities of the stock reaching beyond the scenario price in either three-months' or one-years' time. View explanation of Options Probabilities methodology [here](#)

EQUAL-WEIGHT THESIS

2025 will also be pivotal year for CSX as CEO Heinrichs and COO Cory tackle their first upcycle going for growth. If CSX can deliver margin accretive volume growth with the upcycle, even long time bears are likely to concede that the Rails have turned a corner and have a solid growth path ahead. On the other hand, if even this upcycle cannot drive incremental margins to meet the HSD-LDD expectations of the street, the Rails might lose their cyclical champions crown for good. The first 6 months of the upcycle are likely to resolve this but for now the stock looks close to fair value here.

Consensus Rating Distribution



Source: Refinitiv, Morgan Stanley Research

Risk Reward Themes

Contrarian: Negative
Secular Growth: Negative

View descriptions of Risk Rewards Themes [here](#)

BULL CASE

\$43.00

19x Bull Case on NTM EPS

Macro growth accelerates. Shippers pull forward restocking activity while economic growth concurrently accelerates driving a stronger and sharper Freight upcycle. Volumes see broad upside and IM is able to better compete against IM even with a sharp upcycle. Pricing accelerates some and cost inflation moderates more materially at least on a per carload basis as CSX delivers operating leverage.

BASE CASE

\$30.00

~16x Base Case on normalized EPS

Restock upcycle. Risk of tariffs spurs restock activity followed by accelerated nearshoring actions driving the Freight cycle higher. Revenues are +LSD% y/y reflecting modest growth in volumes (as Rails lose share to truck as is typical of upcycles) and some yield growth (despite coal and fuel likely pressuring 1H). Cost inflation moderates some but not as much as hoped with EBIT also growing LDD% y/y.

BEAR CASE

\$23.00

12x Bear Case on NTM EPS

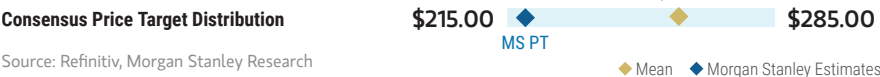
Recession outweighs restock. Macro growth slows more materially outweighing any benefit from a restock derailing a Freight upcycle and industrial/bulk commodity end markets are hit the most while IM suffers from even more competition with truck as pricing fails to inflect materially higher. CSX falls short of revenue and EBIT expectations given volume softness and higher than anticipated cost inflation.

Risk Reward – Union Pacific Corp. (UNP.N)

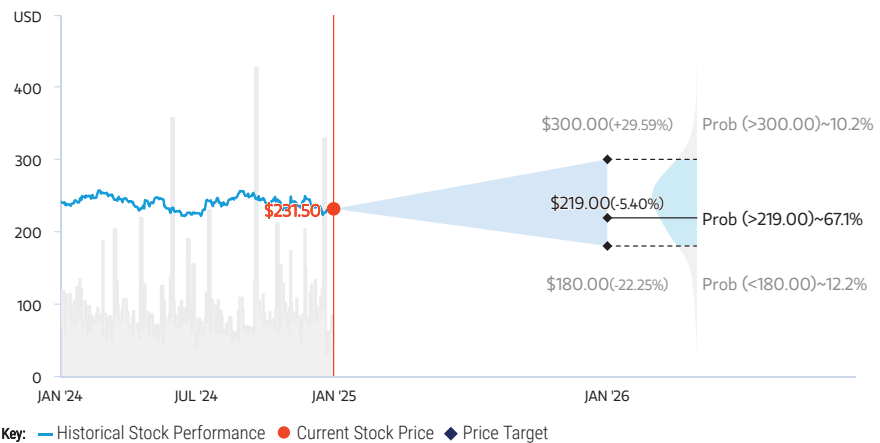
Industry Bellwether That Needs to Manage Through a Tricky Environment

PRICE TARGET \$219.00

We use a 10-year DCF assuming 6.9% WACC and terminal cash flow perpetual growth rate of 1.5%. Our DCF valuation implies a fwd P/E of ~19x, which is ~inline with UNP's historical avg. We believe US rails deserve to trade at discounts to historical valuation due to structural growth and pricing headwinds relative to history but believe UNP can retain a more normal multiple during the current "mean reversion" trade.



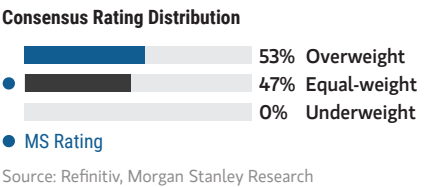
RISK REWARD CHART AND OPTIONS IMPLIED PROBABILITIES (12M)



Source: Refinitiv, Morgan Stanley Research, Morgan Stanley Institutional Equities Division. The probabilities of our Bull, Base, and Bear case scenarios playing out were estimated with implied volatility data from the options market as of 3 Jan 2025. All figures are approximate risk-neutral probabilities of the stock reaching beyond the scenario price in either three-months' or one-years' time. View explanation of Options Probabilities methodology [here](#)

EQUAL-WEIGHT THESIS

2025 will be a show-me story at UNP with mgmt. outlining new 3-year targets at the September investor day which was received with some coolness by the market, even though sell-side has an even higher bar. All eyes will be on whether UNP can capitalize on the upcycle and convert volumes at a price that offsets mix and cost inflation to drop through to the bottom line, which proved challenging in 2024. This in a backdrop of more Rail competition and Truck normally taking share back from Rail in upcycles. Success could mean renewed interest in the Rail space led by a bellwether like UNP, on the other hand slippage could mean more investor coolness ahead.



Risk Reward Themes

Secular Growth: Negative

Contrarian: Negative

View descriptions of Risk Rewards Themes [here](#)

BULL CASE	\$300.00	BASE CASE	\$219.00	BEAR CASE	\$180.00
22x Bull Case on NTM EPS		19x Base Case on NTM EPS		17x Bear Case on NTM EPS	
Macro growth accelerates. Shippers pull forward restocking activity while economic growth concurrently accelerates driving a stronger and sharper Freight upcycle.. Volumes benefit from the broader growth with industrial and consumer end markets participating and driving carloads +MSD%. IM sees less competition from truck as spot spikes again. Cost inflation moderates driving operating leverage and EBIT +HSD% y/y.		Restock upcycle. Risk of tariffs spurs restock activity followed by accelerated nearshoring actions driving the Freight cycle higher. Carloads grow as the freight cycle inflects but modestly so as Rails begin to lose share to truck (as is typical of upcycles). Yield is ~flat y/y as mix and FS headwinds offset modest price gains. Mgmt. makes some strides on cost/efficiency actions but broader inflation, yield headwinds and need to maintain service levels limits op. leverage in 2025.		Recession outweighs restock. Macro growth slows more materially outweighing any benefit from a restock derailing a Freight upcycle. IM conversion lags as truck rates remain very competitive while other end markets suffer from the softer macro backdrop. Cost savings prove more difficult to come by than previous downturns. OR deteriorates again despite the easy comp.	

Risk Reward – Norfolk Southern Corp. (NSC.N)

Changes Underway But Can They Overcome Revenue Challenges?

PRICE TARGET \$175.00

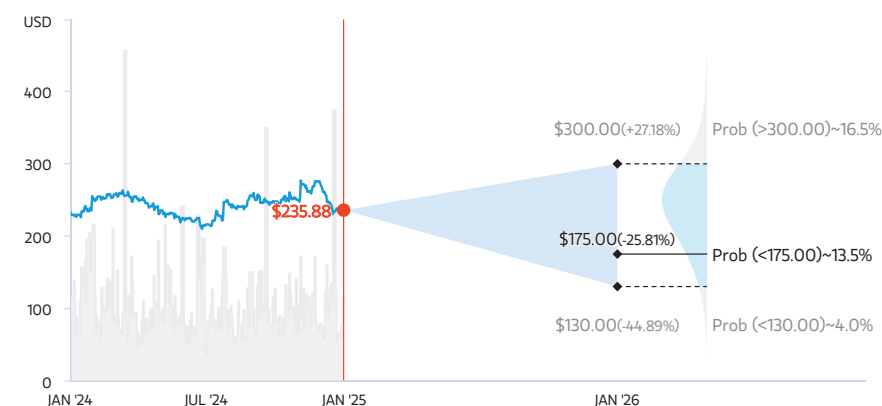
We use a 10-year DCF assuming 7.1% WACC and terminal cash flow perpetual growth rate of 1.5%. Our DCF valuation implies a fwd P/E of ~14.0x, which is just shy of NSC's historical avg. given our cautious outlook on rails. We believe US rails deserve to trade at discounts to historical valuation due to structural growth and pricing headwinds relative to history.

Consensus Price Target Distribution

Source: Refinitiv, Morgan Stanley Research



RISK REWARD CHART AND OPTIONS IMPLIED PROBABILITIES (12M)



Key: — Historical Stock Performance ● Current Stock Price ◆ Price Target

Source: Refinitiv, Morgan Stanley Research, Morgan Stanley Institutional Equities Division. The probabilities of our Bull, Base, and Bear case scenarios playing out were estimated with implied volatility data from the options market as of 3 Jan 2025. All figures are approximate risk-neutral probabilities of the stock reaching beyond the scenario price in either three-months' or one-years' time. View explanation of Options Probabilities methodology [here](#)

UNDERWEIGHT THESIS

Risk-reward is improving but still skews to the downside. While the company has executed on PSR, coal faces secular headwinds and rails continues to face the threat of share gain from truck. While NSC has also effectively settled class-action lawsuits related to the February 2023 derailment in East Palestine OH, removing one key overhang on the stock, it has come at significant cost. Mgmt. has plans to close the OR gap to peers in the coming years but there continues to be risk to consensus numbers in the out-years. The stock's recent underperformance has improved the risk-reward but we still see material downside from here.

Consensus Rating Distribution



● MS Rating

Source: Refinitiv, Morgan Stanley Research

Risk Reward Themes

Contrarian:	Negative
Secular Growth:	Negative
Self-help:	Negative

View descriptions of Risk Rewards Themes [here](#)

BULL CASE

\$300.00

19x Bull Case on NTM EPS

Macro growth accelerates. Shippers pull forward restocking activity while economic growth concurrently accelerates driving a stronger and sharper Freight upcycle and Industrial/bulk commodity end markets keep up while IM competition eases as the truck market tightens. Inflation and service issues moderate materially and operative leverage is more robust as less resourcing is needed for the volumes than we anticipate driving EBIT +HSD% y/y.

BASE CASE

\$175.00

14x Base Case on Normalized EPS

Restock upcycle. Risk of tariffs spurs restock activity followed by accelerated nearshoring actions driving the Freight cycle higher. Revenues are up L-MSD% helped by modest growth in volumes (as Rails lose share to truck as is typical of upcycles) and some yield growth (despite coal and fuel likely pressuring 1H). Inflation moderates and productivity initiatives drive modest OR improvement y/y though this likely is short of expectations.

BEAR CASE

\$130.00

11.0x Bear Case on NTM EPS

Recession outweighs restock. Macro growth slows more materially outweighing any benefit from a restock derailing a Freight upcycle. Weak economic activity weighs on Industrial/bulk commodity end markets. IM suffers from even more competition with truck as rates fall to inflect positively and coal tailwinds reverse sharply. Inflation proves more persistent and OR deteriorates y/y once again.