

BEFORE THE  
SURFACE TRANSPORTATION BOARD

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RAILROAD COST OF CAPITAL - 2022 ) EP 558 (Sub-No. 26)

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

WESTERN COAL TRAFFIC LEAGUE

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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 February 7, 2023, the Western Coal Traffic League (“WCTL”)<sup>1</sup> hereby replies to the opening statement that the Association of American Railroads (“AAR” or “Railroads”) submitted on April 11, 2023.

**I. INTRODUCTION AND SUMMARY**

For present purposes, WCTL does not dispute the accuracy of the AAR’s mathematical calculations in implementing its interpretation of the Board’s methodology.

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-Stage Discounted Cash Flow (“MSDCF”) model, but also in the implementation of the Capital Asset Pricing Model (“CAPM”). Even if the MSDCF were properly specified for

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<sup>1</sup> 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 members currently ship and receive in excess of 90 million tons of coal by rail each year. 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.

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. At least for 2022, the EPS data is so suspect as to make the MSDCF unusable.

To measure the distortion caused by stock buybacks, WCTL obtained the equity analyst reports for CSX, NS, and UP prepared by Credit Suisse referenced in the Refinitiv data submitted by the AAR. The AAR workpapers reference other EPS forecasts, but Refinitiv conceals their identity. In attempting to reconcile the Refinitiv EPS growth figures to the Credit Suisse reports, WCTL discovered severe threshold defects, even before considering buybacks.

The CSX and NS EPS growth forecasts utilize 2021 as the base or starting point, whereas the UP report utilizes a 2022 base. That inconsistency alone should preclude any reliance on the EPS inputs or the MSDCF. In addition, the Credit Suisse EPS forecasts cover only nine quarters (4Q22, 1Q-4Q23, 1Q-4Q24), short of the three-year minimum supposedly required for inclusion as a long-term forecast under the MSDCF. Furthermore, data from 2022 is included in both the forecast and the baseline cashflow data, amounting to a mismatch and a double count. Such threshold defects in the underlying data in the only identified EPS reports should prohibit any reliance on the MSDCF whatsoever. The underlying data simply lacks basic integrity.

Beyond that, review of the Credit Suisse reports confirms that buybacks have an excessive impact on the EPS growth rates. As shown in Table 5, *infra*, buybacks account for 37.4%, 45%, and 44.2% of the forecasted “long-term” EPS growth that

Credit Suisse projects for CSX, NS, and UP, respectively. Removing the impact of the buybacks converts the 13.01%, 10%, and 10.73% EPS growth rates for the carriers to earnings growth rates of 7.91%, 5.37%, and 5.84%, respectively. Buybacks overstate the growth rates, overstated growth rates inflate the future cashflows, and inflated cashflows result in an overstated COE. While only the Credit Suisse figures are available for analysis, the same defect likely attaches to the other EPS forecasts that are unidentified, and thus unreviewable. Use of the MSDCF is not permissible under such circumstances.

The CAPM calculations remain biased by the use of a historical, 1926-based market-risk premium (“MRP”) of 7.17%, as contrasted with the 6% and lower MRPs recommended by respected firms such as Kroll and KPMG.

The resulting AAR values simply do not conform to current investor expectations and fail common sense tests. In particular, the AAR posits a “hybrid” COE of nearly 12% (11.99%) for an industry that has slightly less than average risk, as reflected in the AAR’s beta of 0.9946. In contrast, long-term (ten-year) forecasts for the total return on equities generally, which corresponds to the sum of the CAPM’s MRP and the risk-free rate (or “RFR”), do not exceed 10%, and 8% is a more representative, and even generous, upper bound. Using an 8% COE with the AAR’s capital structure and cost of debt yields an overall COC of 7.32% (*see* Table 4, *infra*), indicating that the AAR’s figure is overstated by some 45% ( $10.58\%/7.32\%=1.45$ ).

The 7.32% COC value closely conforms to the values presented for the three carriers in the composite sample presented by Morgan Stanley in December 2022, as well as in earlier years. The 7.32% is also within the range of values used by railroad

investors themselves, specifically, for the valuation opinions that Morgan Stanley and Bank of America prepared for, and that CP, CN, and KCS utilized in, CP's acquisition of KCS, as well as CN's proposed acquisition of KCS, in 2021. The Board endorsed those analyses in its *CP/KCS Merger* decision in FD 36500 served March 15, 2023, at 150.

In short, abundant evidence demonstrates that the AAR/STB cost of capital values are substantially overstated for 2022, as they have been in previous years. For 2022, the COC should not exceed 7.32%.

WCTL is not deaf to the AAR/STB rejoinders that the COC methodology can be considered only in a separate rulemaking proceeding, and not in an annual EP 558 determination. Several responses are in order. First, the problems with the Board's methodology manifest themselves differently depending on each year's data, and errors and distortions should be documented and described as they emerge. If the data is defective, the MSDCF cannot be utilized. Second, the soundness of a theoretical construct cannot be divorced from how it functions in practice and the data on which it relies. The Board cannot adopt a methodology and then refuse to examine the inputs or results for the methodology, especially when the Board is ostensibly estimating something it cannot measure directly. Third, the Board can always commence a rulemaking proceeding to review the methodology on its own initiative. To that end, WCTL asks that these comments be construed as a petition for the STB to institute rulemaking to the extent necessary to have its concerns considered and addressed. The errors, especially in the MSDCF inputs, likely extend to previous years. Earlier calculations should be reviewed or, at the very least, be subject to reexamination,

especially to the extent they retain prospective significance for multi-year applications, such as RSAM and long-term revenue adequacy.

## **II. THE AAR'S COST OF EQUITY DEVIATES SUBSTANTIALLY FROM RESPECTED BENCHMARKS**

Railroads are said to compete with firms in other industries for investor capital.<sup>2</sup> To that extent, an appropriate starting point for reviewing the railroad COE is to consider the expected return that equities generally need to offer in order to attract or retain investment.

The closest that the Board's current methodology comes to ascertaining that benchmark is the CAPM, where the AAR combines the 3.30% RFR (reflecting the yield on 20-year U.S. Treasury bonds) with a 7.17% MRP to yield a standard return for equities of 10.47%, which is then adjusted downwards slightly by the 0.9946 railroad beta to yield a CAPM COPE of 10.43%. However, the Board employs a MRP that reflects the arithmetic average of the historical S&P 500 equity returns relative to the RFR since 1926, nearly a hundred years ago, rather than a MRP that seeks to measure more current investor expectations.

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<sup>2</sup> In fact, the railroads in the composite sample have not needed to raise outside equity capital in many years, and instead rely on revenues extracted from customers. The railroads respond that those revenues are not "excess," but needed to fund dividends, buybacks, and capital expenditures, and suppressing their COE will cause funds needed for operations to be diverted to non-railroad purposes. That outcome seems unlikely. Most railroad rates are not regulated (the same reason that "circularity" 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 2022 exceeded 52%. UP Annual Report for 2022 at 32, [https://www.up.com/cs/groups/public/@uprr/@investor/documents/investordocuments/pdf\\_up\\_10k\\_02102023.pdf](https://www.up.com/cs/groups/public/@uprr/@investor/documents/investordocuments/pdf_up_10k_02102023.pdf).

Expected equity returns, which form the opportunity cost of capital in the market where railroads ostensibly compete for capital, are far lower. For example, Vanguard forecasted, as of December 12, 2022, “U.S. equities to return 4.7%-6.7% over the next 10 years.”<sup>3</sup> As of January 4, 2023, before year-end 2022 corporate results were released, JP Morgan’s long-term (10-15-year) projected return for U.S. large cap equities was significantly higher at 7.9%, but still far below the AAR’s posited 10.47%.<sup>4</sup> Schwab’s report of the same date for 10-year projected returns (2023-2032) forecasted a return for U.S. Large-Company Stocks of 6.1%, within Vanguard’s range.<sup>5</sup>

In addition, Kroll (successor to Morningstar, which acquired Ibbotson) recommends a MRP of 6.0% as of the end of 2022.<sup>6</sup> When combined with the AAR’s 3.3% RFR, the resulting expected equity return is 9.27% (*see* Table 4, *infra*), 116 basis points below the AAR CAPM value, and 272 basis points below the 11.99% hybrid COE value proffered by the AAR.

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<sup>3</sup> *See* <https://advisors.vanguard.com/insights/article/2023economyandmarkets4thingstoknow>.

<sup>4</sup> *See* <https://am.jpmorgan.com/content/dam/jpm-am-aem/global/en/insights/portfolio-insights/lcma/lcma-full-report.pdf> (p. 14). The document is not dated, but selecting the “Description” tab under “Properties” shows created and modified dates of January 2, 2023.

<sup>5</sup> *See* <https://www.schwab.com/learn/story/schwabs-long-term-capital-market-expectations>.

<sup>6</sup> *See* <https://www.kroll.com/en/insights/publications/cost-of-capital>. Kroll recommends a 20-year RFR of the higher of a “normalized” 3.5% or spot yield.

The AAR’s COE values are simply far out of line with current capital market realities and expectations and confer an excessive return relative to that required to attract or maintain investment.

### **III. THE AAR’S COST OF CAPITAL ALSO DEVIATES SUBSTANTIALLY FROM BENCHMARKS FOR THE RAILROAD INDUSTRY**

The AAR’s 10.58% COC value also falls far outside the range of available COC benchmarks for the railroad industry itself.

In particular, Morgan Stanley continues to present weighted average cost of capital (“WACC”) values for individual railroads. The most timely and relevant are those from its *4Q22 Preview: In Limbo* for Freight Transportation for North America, dated January 11, 2023, before the railroads disclosed their results for 4Q22. 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 by market capitalization:

| Table 1                                     |        |         |          |
|---------------------------------------------|--------|---------|----------|
| Morgan Stanley COC Values for Year-End 2022 |        |         |          |
| Carrier                                     | MS COC | Weight  | Weighted |
| CSX                                         | 7.30%  | 26.11%  | 1.91%    |
| NS                                          | 7.10%  | 22.87%  | 1.62%    |
| UP                                          | 6.90%  | 51.03%  | 3.52%    |
|                                             |        | 100.00% | 7.05%    |

The calculation is presented at WCTL’s e-workpaper at tab “Table 1.”<sup>7</sup>

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<sup>7</sup> The Morgan Stanley (and perhaps the Bank of America figures that are discussed *infra*) may possibly incorporate reflect a tax shield for debt. If so, the effect is very modest, as the shield is calculated as weight of debt (18.29%) times cost of debt (4.28%) times tax rate (21%), which equals 0.1644%.

Notwithstanding the economic tumult of 2022, Morgan Stanley's COC values for the carriers for 2022 are similar to its corresponding values as of the end of 2021:<sup>8</sup>

| Table 2                                     |        |         |          |
|---------------------------------------------|--------|---------|----------|
| Morgan Stanley COC Values for Year-End 2021 |        |         |          |
| Carrier                                     | MS COC | Weight  | Weighted |
| CSX                                         | 7.50%  | 25.84%  | 1.94%    |
| NS                                          | 7.50%  | 23.13%  | 1.73%    |
| UP                                          | 7.20%  | 51.03%  | 3.67%    |
|                                             |        | 100.00% | 7.35%    |

The calculation is presented at WCTL's e-workpaper at tab "Table 2." The fact that Morgan Stanley's weighted average COC for 2022 (7.05%) is slightly lower than that for 2021 (7.35%) demonstrates that increases in inflation and interest rates during 2022 do not compel a COC increase, especially to the extent that long-term investor expectations have cooled.

The Morgan Stanley values are particularly informative in that Morgan Stanley, along with Bank of America, addressed the costs of capital for KCS, CP, and CN in conjunction with CP's and CN's pursuit of KCS in 2021, which culminated in CP's acquisition of KCS into a voting trust on December 14, 2021, followed by the Board's approval of the merger in a decision in FD 36500, *CP/KCS Merger*, served March 15, 2023. Morgan Stanley and Bank of America both provided fairness opinions that CP and

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<sup>8</sup> See *4Q21 Preview: The Show Goes On (For Now)*, Morgan Stanley Freight Transportation/North America (Jan. 10, 2022), excerpts attached as Exhibit B. The market capitalization percentages are those from the STB's 2021 Cost of Capital Decision in Table 14 at p. 19.

KCS included at Annexes B and C, respectively, in their November 3, 2021 proxy statement for the voting trust acquisition.<sup>9</sup>

The proxy statement explained that Morgan Stanley also provided some additional valuations finding a range of implied equity values for KCS. Morgan Stanley discounted unlevered free cash flows and a range of terminal values by utilizing weighted average costs of capital between 6.1% and 7.3% that was determined using a CAPM cost of equity. The cash flows and terminal values were calculated:

by applying a discount rate range of 6.1% to 7.3%, which was selected based on Morgan Stanley's professional judgment and experience, to reflect KCS's estimated weighted average cost of capital. Morgan Stanley used a discount rate range of 6.1% to 7.3% to reflect KCS's estimated weighted average cost of capital, which was calculated by multiplying the cost of each capital source (debt and equity) by its relevant weight, and then adding the products together to determine the value. Cost of equity was calculated using the Capital Asset Pricing Model ("CAPM").

CP/KCS Proxy Statement at 75.

Morgan Stanley used a similar approach for CP, with a value range of 5.4% to 6.7%. *Id.* at 81. Bank of America performed a similar valuation, identifying cost of capital values of 6.0% to 7.5% for both KCS and CP. *Id.* at 91. In addition, the two firms provided very similar analyses for CN's proposed acquisition of KCS. For example, the two firms provided fairness opinions dated May 21, 2021, that were

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<sup>9</sup> See <https://www.sec.gov/Archives/edgar/data/54480/000119312521318604/d877235ddefm14a.htm>. The fairness opinions are dated September 15, 2021.

included at Annexes B and C of CN's June 22, 2021 filing.<sup>10</sup> In their separate valuations, Morgan Stanley used a cost of capital range of 6.4% to 7.6% for KCS and 5.5% to 6.6% for CN, and Bank of America used a cost of capital range of 6.0% to 7.5% for KCS and 5.5% to 7.0% for CN. CN/KCS Proxy Statement at 60, 65, 75, and 77.

The Morgan Stanley and Bank of America values are especially telling in that they were procured by and relied upon by the Class I railroads and presented to help investors assess the merits of the proxy offers. Moreover, the Board itself endorsed the two firms' analyses in finding the compensation to be fair to KCS (and CP) shareholders and approving the CP-KCS merger:

These financial analyses [including Morgan Stanley and Bank of America] employed various valuation techniques... These investment firms, which have substantial expertise... After carefully reviewing the arguments and conclusions of these investment firms, and with no argument in the record to the contrary, the Board finds that the terms of the acquisition agreement are fair to the shareholders of CP and KCS.

FD 36500, *CP/KCS Merger* (STB served March 15, 2023), at 150. In contrast, the AAR's 10.58% COC value enjoys no such apparent industry endorsement or investor/real-world utilization. The Morgan Stanley and Bank of America values thus confirm that the AAR's posited COC value of 10.58% is substantially out of line and vastly overstates the return that investors and Class I railroads themselves seek and expect to invest in the railroad industry.

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<sup>10</sup> See [https://www.sec.gov/Archives/edgar/data/16868/000119312521196364/d107427df4.htm#rom107427\\_120](https://www.sec.gov/Archives/edgar/data/16868/000119312521196364/d107427df4.htm#rom107427_120).

#### IV. REASONABLE APPLICATION OF THE CAPM SUPPORTS THE MORGAN STANLEY AND BANK OF AMERICA COC VALUES

The reasonableness of the Morgan Stanley and Bank of America COC values is easily supported by standard application of the CAPM.

For example, use of the Kroll-recommended MRP of 6.0% (*see* n.6, *supra*, and related text) in conjunction with the AAR's RFR of 3.30%, together with the AAR's 0.9946 beta, capital structure, and cost of debt results in an overall COC below 8.5%:

| Table 3                                                                                                                            |              |                          |        |              |
|------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------------------|--------|--------------|
| Derivation of Cost of Capital for Industry Composite Sample Using Kroll MRP and AAR RFR, Beta, Capital Structure, and Cost of Debt |              |                          |        |              |
| CAPM Cost of Equity                                                                                                                |              | Industry Cost of Capital |        |              |
| Risk-Free Rate                                                                                                                     | 3.30%        | Component                | Weight | Cost         |
| Market-Risk Premium                                                                                                                | 6.00%        | Debt                     | 18.29% | 0.78%        |
| Beta (Composite Sample)                                                                                                            | 0.9946       | Equity                   | 81.71% | 7.57%        |
| <b>Cost of Equity</b>                                                                                                              | <b>9.27%</b> | <b>Average COC</b>       |        | <b>8.36%</b> |

The calculation is presented at WCTL's e-workpaper at tab "Table 3." By this conservative approach, the AAR's figure is overstated by nearly 27% ( $10.58\%/8.36\%=1.266$ ).

Furthermore, the implied valuation premise in Table 3 is that long-term equity returns, as measured by the sum of the RFR and MRP, will approximate 9.3%. As noted, respected forecasts are substantially lower, about 7.9% according to JP Morgan, and lower still according to Vanguard and Schwab. Utilizing an 8% COE value, excluding any beta adjustment, and including the AAR's values for the capital structure and cost of debt, yields a railroad overall COC of 7.32%:

| Table 4<br>Weighted Average Cost of Capital Using 8%<br>COE with AAR's Capital Structure and Cost of Debt |        |       |                |
|-----------------------------------------------------------------------------------------------------------|--------|-------|----------------|
|                                                                                                           | Weight | Value | Weighted Value |
| Debt                                                                                                      | 18.29% | 4.28% | 0.78%          |
| Equity                                                                                                    | 81.71% | 8.00% | 6.54%          |
| Overall COC                                                                                               |        |       | 7.32%          |

The calculation is presented at WCTL's e-workpaper at tab "Table 4."

The 7.32% value is at the upper end of the Morgan Stanley range for the KCS acquisition (2021 valuation), above the Bank of America range for the KCS acquisition (again, a 2021 valuation), in line with the Morgan Stanley composite sample valuation for 2021 (Table 1, *supra*), and 27 basis points above the Morgan Stanley valuation for the composite sample for 2022 (Table 2, *supra*). The 7.32% figure is thus an appropriate benchmark or upper limit value.

## **V. THE AAR'S MSDCF CALCULATIONS RELY ON FLAWED DATA**

The AAR's higher values are driven in substantial part by the impact of the MSDCF. WCTL has long been concerned about the impact of share reductions due to buybacks on the EPS forecasts used in the MSDCF. The MSDCF utilizes EPS projections as a proxy for growth in cashflows, and the EPS reflects changes in shares as well as earnings. The AAR obtains its EPS values from Refinitiv, not the actual underlying analyst reports. AAR at 7; Verified Statement of AAR Witness John Gray ("Gray VS") at 42-43 and Appendix L.

In order to bring some transparency and to review what is "under the hood" in the Refinitiv EPS projections presented by the AAR, WCTL sought to obtain the actual analyst reports. A major obstacle is that the forecast providers have, with one

exception, denied Refinitiv permission to identify the forecaster. The AAR's Appendix L identifies four EPS growth estimates for CSX and three each for NS and UP, but the only identified analyst is Ariel Rosa of Credit Suisse.<sup>11</sup> WCTL was able to obtain, after some effort and payment of a fee, the Credit Suisse reports for the three carriers.<sup>12</sup> WCTL has included the Credit Suisse reports for CSX, NS, and UP as Exhibits C, D, and E, respectively.

Working from those reports, WCTL was able to replicate, or very closely approximate,<sup>13</sup> the EPS figures that the AAR attributes to Refinitiv utilizing the Credit Suisse figures for earnings (termed "Adjusted Net Income"), shares, and EPS,<sup>14</sup> as shown in the following table:

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<sup>11</sup> Three or four estimates per carrier is not a very robust sample. The paucity of estimates suggests that investors attach little importance to them or do not consider them to be reliable. In any event, Credit Suisse is the highest estimate in each instance.

<sup>12</sup> While the fee was modest, the Board's stated preference is that COC data inputs should be available without charge. *E.g.*, EP 558 (Sub-No. 10), *Railroad Cost of Capital—2006* (STB served Apr. 14, 2008), at 7. WCTL's impression is that each railroad routinely receives copies of analyst reports for that railroad.

<sup>13</sup> Rounding and/or truncation may account for the minor difference with NS, where the AAR showed a 9.96% growth rate not 10.00%. Credit Suisse also shows a \$14.10 EPS for UP in 2024, not \$14.09.

<sup>14</sup> The Credit Suisse reports also present annual percentage growth figures for EPS growth, EBIT, and net profit.

| <p style="text-align: center;">Table 5<br/>Impact of Forecasted Growth in Actual Earnings and<br/>Buybacks on Credit Suisse Forecasted EPS Growth Rates</p>                                                                                                                                                                                                                                                                                                                                                 |          |                |         |         |         |                 |        |                   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------------|---------|---------|---------|-----------------|--------|-------------------|
| Carrier                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Metric   | 2021<br>Actual | 2022    | 2023    | 2024    | Total<br>Growth | CAGR   | Buyback<br>impact |
| CSX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Earnings | \$3,516        | \$4,040 | \$4,184 | \$4,418 | 25.65%          | 7.91%  |                   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Shares   | 2,255          | 2,145   | 2,044   | 1,963   | 14.88%          | 4.73%  |                   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | EPS      | \$1.56         | \$1.88  | \$2.05  | \$2.25  | 44.35%          | 13.01% | 37.43%            |
| NS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Earnings | \$3,005        | \$3,187 | \$3,307 | \$3,516 | 17.00%          | 5.37%  |                   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Shares   | 248            | 236     | 226     | 218     | 13.76%          | 4.39%  |                   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | EPS      | \$12.12        | \$13.50 | \$14.63 | \$16.13 | 33.11%          | 10.00% | 44.97%            |
| UP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Earnings | 6,523          | 7,184   | 7,503   | 8,047   | 12.01%          | 5.84%  |                   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Shares   | 655            | 625     | 598     | 571     | 9.46%           | 4.62%  |                   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | EPS      | \$9.96         | \$11.49 | \$12.55 | \$14.09 | 22.61%          | 10.73% | 44.19%            |
| <p>Notes:</p> <ol style="list-style-type: none"> <li>1. Refinitiv growth values for CSX and NS use a 2021 base, but a 2022 base for UP.</li> <li>2. Some minor deviations from Credit Suisse and Refinitiv values apparently due to rounding.</li> <li>3. Change in shares depicted as impact on EPS due to decreasing shares.</li> <li>4. Buyback impact relative to earnings growth calculated on an arithmetic basis.</li> <li>5. The calculation is shown in WCTL e-workpaper tab "Table 5."</li> </ol> |          |                |         |         |         |                 |        |                   |

Preparation of Table 5 revealed several major data issues. The first, and most serious, is that the CSX and NS EPS forecast values, as presented by the AAR, utilize a 2021 base, but the UP forecast utilizes a 2022 base. The forecasts plainly should be stated on the same basis, as using different bases introduces distortions. For example, using a 2022 base for CSX reduces the 13.01% EPS growth rate to 9.4%.<sup>15</sup> The 2022 base appears appropriate inasmuch as the first forecasted year in the MSDCF is 2023.

Second, the forecasts are not really long-term. The forecasts were, as required by the Board, prepared in the fourth quarter of 2022, when data from the first three quarters of 2022 was already historical and incorporated in the historical or actual

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<sup>15</sup> CSX's earnings for 2022/2021 are \$2.25/\$1.88, which equals 1.197, and the square root (to obtain the two-year compound annual growth rate or CAGR) is 1.094, corresponding to 9.4%. In contrast, Credit Suisse shows CSX's earnings in 2022 increased 14.9% from 2021 alone (\$4,040/\$3,516=1.094).

analysis. The forecast then spans only nine quarters: the last quarter of 2022, the four quarters of 2023, and the four quarters of 2024. A nine-quarter forecast is not a three-year forecast, the supposed minimum for a long-term forecast under the MSDCF. EP 664 (Sub-No. 1), *Use of a Multi-Stage Discounted Cash flow Model in Determining the Railroad Industry's Cost of Capital* (STB NPR served Aug. 11, 2008), at 5. A nine-quarter forecast covers less than half of the twenty quarters covered by the first stage, and less than a quarter of the forty quarters covered by the first two stages combined. A shorter forecast is less likely to prove accurate for the extended period for which it is applied under the MSDCF, and more prone to overstate the impact of shorter-term factors, particularly extraordinary growth.

Third, even assuming *arguendo* that 2022 is selected as the base for the forecast, actual data from the fourth quarter of 2022 (the first quarter covered by the forecast) is already incorporated elsewhere in the MSDCF. Specifically, historical, full-year data for 2022 is used for determining the initial cash flow for both (a) the “smoothing” and (b) the application of the smoothing factors to the 2022 earnings, as depicted in Table No. 13 in the Gray VS at 40. There is thus a double count in that the same data is considered in both the baseline data and the forecast. The problem is exacerbated if the forecast relies on a 2021 base and includes growth for 2022.

These problems are severe in isolation, and even more problematic in combination. The same problems may well extend to the unidentified forecasts, and Refinitiv's source anonymity precludes review. In short, what data there is lacks basic

integrity, and the other forecast data is not even available for inspection. A MSDCF that relies on such flawed and unreviewable inputs should not be utilized.

## **VI. THE BOARD'S CAPM COE IS ALSO DEFECTIVE BECAUSE IT RELIES ON EPS GROWTH RATES THAT ARE BIASED BY STOCK BUYBACKS**

As noted above, WCTL sought the Credit Suisse reports to ascertain the extent to which the forecasted EPS growth rates rely not on growth in actual earnings (the “E”), but instead on reductions in shares (the “S”) caused by buybacks. As demonstrated below, the buybacks are a major contributor to the EPS growth projections in the Credit Suisse forecasts and are likely to taint the other EPS forecasts as well.

The railroads engaged in substantial buybacks in 2022, as well as in prior years. UP reduced its full-year average share count in 2022 by 5%,<sup>16</sup> as did CSX,<sup>17</sup> and NS's share repurchases amounted to 4.9%.<sup>18</sup>

That magnitude of buybacks increases the importance of understanding how buybacks alter the EPS calculation. For this purpose, assume that a hypothetical firm earns \$100 in both years 1 and 2, has 100 shares in year 1, and buys back 5 shares in year 2. The 5% reduction in shares (5/100) causes the EPS to go from \$1 per share in

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<sup>16</sup> UP 2022 Annual Report, *supra*, at 4.

<sup>17</sup> CSX 2022 Annual Report at 78 (2,141 million shares outstanding at the end of 2022, compared to 2,255 million shares outstanding at the end of 2021), [https://s2.q4cdn.com/859568992/files/doc\\_financials/2022/ar/2022-csx-annual-report.pdf](https://s2.q4cdn.com/859568992/files/doc_financials/2022/ar/2022-csx-annual-report.pdf).

<sup>18</sup> NS Annual Report for 2022 at K72 (showing 235.6 million shares outstanding at the end of 2022, compared to 248.1 million shares outstanding at the end of 2021), [http://www.nscorp.com/content/nscorp/en/investor-relations/financial-reports/annual-reports/\\_jcr\\_content/mainpar/twocolparsys/rightcol/download/file.res/2022%20Annual%20Report.pdf](http://www.nscorp.com/content/nscorp/en/investor-relations/financial-reports/annual-reports/_jcr_content/mainpar/twocolparsys/rightcol/download/file.res/2022%20Annual%20Report.pdf).

year one (\$100/100 shares) to \$1.0526 per share in year two (\$100/95 shares), an increase of 5.26%, despite no change in total earnings. For this reason, Table 5, *supra*, depicts the impact of buybacks on EPS (the equivalent of the 5.26%), not the reduction in shares (the 5%).

WCTL prepared Table 5 to isolate the respective roles of earnings and buybacks in the EPS growth depicted in the Credit Suisse forecasts (or the AAR/Refinitiv presentation thereof). Table 5 shows how buybacks account for: (a) 37.43% of CSX's 13.01% EPS growth, (b) 44.97% of NS's 9.96% EPS growth, and (c) 44.19% of UP's 10.73% EPS growth. Stated differently, the Credit Suisse EPS growth would, without the buybacks, have been 7.91% for CSX, 5.37% for NS, and 5.84% for CSX, NS, and UP, respectively. Using the 2022 base, the CSX forecasted growth rate in earnings is even lower, 4.57%.<sup>19</sup> The corrected growth rates are less than or near the Stage Three growth rate of 5.68%, undermining the basis for the MSDCF's assumption that terminal cashflows should be redefined and suddenly surge upwards at the end of Stage Two.

A sell-side analyst logically focuses on EPS in providing guidance on whether investors should buy, hold, or sell individual shares and at what price.<sup>20</sup> In

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<sup>19</sup> CSX's two-year compound annual growth rate is calculated square root of CSX 2022 earnings/2021 earnings ( $(\$4,418/\$4010)^{0.5}=1.0457$ ).

<sup>20</sup> Likewise, analysts also logically consider a firm's leverage. For example, the Credit Suisse reports present debt and develop a "Net debt/equity (%)." The reports include operating leases within debt, although confirmation requires additional data. For example, the Credit Suisse report for UP on page 2 specifies \$30,198 as "Net debt" as of the end of 2021 ("12/21A"). UP presents its 2021 debt in its 2021 10-K, [https://www.up.com/cs/groups/public/@uprr/@investor/documents/investordocuments/pdf\\_up\\_10k\\_02042022.pdf](https://www.up.com/cs/groups/public/@uprr/@investor/documents/investordocuments/pdf_up_10k_02042022.pdf), in its balance sheet at page 37 ("Consolidated Statements of

contrast, the MSDCF centers on the relationship between cashflows and market capitalization for the company as a whole, not individual shares. Use of EPS growth in the presence of non-trivial buybacks causes systematic overstatement of those future cashflows and the associated COE discount rate under the MSDCF.

The AAR attempts to anticipate WCTL's criticism (which WCTL has presented previously), and offers a rebuttal. The AAR's Mr. Gray claims that buybacks serve to *lower* the cost of capital by accelerating the distribution of cashflows to sellers:

One interested party believes that stock repurchases (buybacks) bias the MSDCF *upwardly*. However, stock repurchases have the opposite effect – they bias the MSDCF *downward*. The MSDCF does not fully reflect the reality that distributions to shareholders (buybacks) mean cash flows to investors are shifted forward in time, and earlier cash flows should raise cost of equity estimates since the present value of a dollar received today is always (unless we have deflation) greater than the present value of that same dollar received at some future date. Since the model cannot account for this shift forward in cash flows, it is likely to understate the cost of equity. See September 5, 2014, verified statement of Dr. Bente Villadsen on behalf of Association of American Railroads in Ex Parte No. 664 (Sub-No. 2).

Gray VS at 38 n.27 (original emphasis).

Mr. Gray's assertion lacks foundation and defies logic. The MSDCF model is designed to be indifferent as to whether available cashflow is distributed as dividends,

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Financial Position"). CSX specifies \$2,166 in debt due within one year, \$27,563 in debt due after one year, and \$1,429 in operating leases, which sum to \$31,158. Subtracting the \$960 in cash and cash equivalents yields the Credit Suisse net debt figure of \$30,198. The Credit Suisse reports confirm that investors treat operating leases as debt. The Board's failure to do so is another source of COC overstatement relative to investor expectations.

used for buybacks, and/or retained for reinvestment in the form of capital expenditures. In fact, the Board proposed and selected the MSDCF because it utilizes a broad measure of “available” cash flow, not how the cashflow is utilized.<sup>21</sup> One of the model’s supposed virtues compared to, say, the prior Gordon Dividend Growth model, is that the MSDCF can be applied to firms that do not pay dividends or utilize buybacks.

Mr. Gray’s claim that buybacks are better or more valuable than other uses of cashflow thus violates the MSDCF’s basic precept. The AAR is effectively seeking to have its cake (an MSDCF model that is indifferent as to how available cashflow is utilized), and eat it, too (claim buybacks count more than other uses of cashflow).<sup>22</sup>

Mr. Gray also fails to consider that buybacks and dividends both have tax consequences for the affected shareholder(s). In contrast, retaining the funds allows the

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<sup>21</sup> The MSDCF “incorporates a wider array of cash flows for equity investors by applying expectations of earnings growth to the firms’ cash flows, not just actual dividends. Thus, it accounts for all of the relevant cash flows a reasonable investor is likely to anticipate, including share repurchases and earnings’ reinvestments to obtain greater future cash flows, along with dividends.” EP 664 (Sub-No. 1) (NPR), *supra*, at 5 (proposing the MSDCF). “These cash flows are not presumed to be paid out to investors; instead, it is assumed investors will ultimately benefit from these cash flows through higher regular dividends, special dividends, stock buybacks, or stock price appreciation.” EP 664 (Sub-No. 1) (STB decision served Jan. 28, 2009), at 5 (adopting the MSDCF).

<sup>22</sup> For purposes of this proceeding, WCTL will assume that the funds utilized for dividends and buybacks are not needed for capital expenditures or to support operations. However, there is abundant evidence that the railroads have, in fact, harmed their customers, the public, and themselves by not maintaining and attracting an adequate labor force, not having locomotives available, choosing to run longer trains without having longer sidings available to accommodate those trains, limiting capital expenditures, reducing maintenance, and not preserving resiliency and surge capacity. In that regard the \$6.3 billion that UP paid \$ for buybacks in 2022 was \$1.7 billion more than the \$4.6 billion it paid for compensation and benefits for labor, its single largest expense category, and nearly \$3 billion more than the \$3.4 billion it paid for capital expenditures. UP 2022 Annual Report, *supra*, at 20, 25, 30.

taxes to be deferred and funds favorably reinvested inside the railroad, *e.g.*, UP achieved a return on equity in 2022 exceeding 50%. A shareholder needing the cash can always elect to sell the shares at a time of his or her choosing.

Even assuming *arguendo* some additional value in making earlier distributions to shareholders, as opposed to capex investment or general retention, the same benefit could be achieved through dividends, without reducing shares and altering the resulting EPS.<sup>23</sup> The COE should not increase because a firm distributes cash using buybacks instead of dividends, but that is exactly the outcome under the MSDCF. And even if buybacks, but not dividends, somehow magically lowered the COE, there is no reason to think that reduction would offset the EPS increase, some 37%-45% in the 4Q2022 Credit Suisse reports, resulting from the reduction in shares and the resulting increase in projected cashflows and the associated COE.

As noted, WCTL's analysis is based on the Credit Suisse reports, the only ones that Refinitiv identifies by name, but other analysts forecasting EPS would logically treat buybacks in the same manner. The MSDCF should not be utilized in conjunction with EPS growth rates that reflect stock repurchases, especially when buybacks account for much of the projected EPS growth. The Board lacks the information to adjust those

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<sup>23</sup> Dividends go to all shareholders, whereas buybacks initially go only to those shareholders that elect to sell, but the buybacks reduce the number of outstanding shares, which increases the value of all shares outstanding. To return to the hypothetical, one share of 100 total outstanding shares is worth 1% of the company, but one share of 95 shares is worth more, 1.0526%, of the company. Even if buybacks somehow lower the firm's equity, the firm's cost of capital should remain unchanged under the Modigliani-Miller Theorem.

other forecasts for buybacks. As explained, the Credit Suisse reports are problematic in other respects, and those flaws may also extend to the other, anonymous reports. Under the circumstances, the MSDCF should not be utilized at all. In addition, prior determinations should also be revisited, or their use limited accordingly.

## **VII. THE MSDCF AS APPLIED IS A POOR FIT FOR THE RAILROAD INDUSTRY**

Even putting aside the problems with data integrity and the impact of buybacks on the growth rates, the MSDCF is a poor fit as applied to the composite sample for calculating the railroad industry cost of capital.

Of particular concern is the second stage of the model that utilizes the simple average of the Stage One growth rates. Mr. Gray notes that Stage Two “*is not a transition stage where the growth rate should be smoothed*” (original emphasis), but instead one where “the growth of any particular company will lie more in line with the industry as a whole” and “other companies ‘catch’ their industry growth leaders, or the leaders fall back to the rate of the slower growth railroads.” Gray VS at 43-44 (second passage quoting *Ibbotson SBBI 2013 Valuation Yearbook* (Morningstar) at 51). Mr. Gray omits the *Ibbotson SBBI* language that the growth rates for the first stage “should reflect any extraordinary near-term growth potential,” so that in “years 6 through 10, an average of the analysts’ consensus estimates of growth for the entire industry is used.” 2011 *Ibbotson SBBI Valuation Yearbook* (Morningstar) at 50. In other words, the second stage may not be a formal “transition,” but is nonetheless intended to balance out or dilute any extraordinary growth in the first stage for any particular firm.

That balancing effect disappears when the “industry” is specified to include only three (once four) firms that are very similar and heavily intertwined. CSX, NS, and UP serve the same or closely related markets and often the same exact customers, interchange traffic, and have joint rate or revenue sharing arrangements of various kinds; they use nearly identical and/or interchangeable technology; and they have all embraced PSR, giving rise to the same associated problems, locomotive deficits, and headcount shortages. Under such circumstances, intra-industry diversity dissipates, growth rates converge, and the second stage for any particular firm largely duplicates the first. In particular, the spread of median growth rates for the three railroads in the composite sample in 2022 was only 264 basis points, and the spread was less than half that in 2021, only 101 basis points. Under those circumstances, there is no “industry as a whole,” and the model does not function as intended.

Accordingly, when growth rates are particularly high, as has been the case for railroads that are prone to cyclicalities, the MSDCF projects outsized growth to continue over an unrealistic time period. For example, the average growth rate in 2021 was 17.56%, which causes cashflows to more than double over the first stage ( $1.1756^5=2.25$ ), and to quintuple at the end of the second stage ( $1.1756^{10}=5.04$ ), only then to be redefined upwards even more for the terminal stage. Such outsize results represent a perversion of the model as it was intended to operate. While the AAR’s growth rates are lower in 2022, there is no reduction in the second stage, and 10.28% in the second stage represents outsize growth as it is 81% greater than the 5.68% terminal growth rate.

The combination of the clustering of the growth rates and their cyclicalities also creates year-to-year instability of the MSDCF results, especially as compared to the relative stability of the CAPM. The following table compares the MSDCF, CAPM, and combined COE over the six years from 2017 through 2022:

| Table 6                                           |        |        |         |
|---------------------------------------------------|--------|--------|---------|
| Comparison of MSDCF and CAPM COE Values 2017-2022 |        |        |         |
| Year                                              | MSDCF  | CAPM   | Average |
| 2017                                              | 12.18% | 10.74% | 11.46%  |
| 2018                                              | 17.01% | 10.70% | 13.86%  |
| 2019                                              | 11.12% | 10.22% | 10.67%  |
| 2020                                              | 9.52%  | 9.14%  | 9.33%   |
| 2021                                              | 14.09% | 9.97%  | 12.03%  |
| 2022                                              | 13.54% | 10.43% | 11.99%  |
| Average                                           | 12.91% | 10.20% | 11.56%  |
| Standard Deviation                                | 2.60%  | 0.60%  | 1.51%   |

The calculation is presented at WCTL’s e-workpaper at tab “Table 6.” The MSDCF COE is systematically greater than the CAPM COE over this period by an average of 2.71 percentage points or 27% (12.91%/10.20%). Furthermore, the volatility of the MSDCF COE, as measured by the standard deviation, is 2.6%, as against an average COE of 12.91%, and more than quadruple the volatility of the CAPM COE at 60 basis points. The volatility of the hybrid MSDCF/CAPM is 151 basis points, two and a half times that of the CAPM by itself.

At the time it sponsored the hybrid approach, the AAR presented data to show that adding the MSDCF would reduce volatility. Specifically, Dr. Bruce Stangle’s Verified Statement in EP 664 (Sub-No. 1), dated April 14, 2008, showed MSDCF volatility at 92 basis points, CAPM volatility at 93 basis points, and combined volatility

at 75 basis points. “Thus,” he asserted, “if the Board were to adopt the combination methodology demonstrated above it would produce a more stable estimate of the industry’s cost of equity than if it were to rely on the CAPM methodology alone.”

Stangle VS at 7-8. The MSDCF has had the opposite effect in practice.

The theory underlying the MSDCF theory is that higher growth rates will be matched by increases in stock price and market capitalization that offset the growth rates and stabilize the COE. The MSDCF COE surges and high standard deviation demonstrate that the stock price response is insufficient. The logical conclusion is that the MSDCF is a poor fit for the railroads, as the market does not believe the forecasts will hold for the extended term, *e.g.*, that a nine-quarter forecast will prove accurate over forty quarters. In other words, the MSDCF does not track investor expectations.

The MSDCF has not served its intended purpose. It has increased volatility substantially and produced COE results that are so far out of benchmark range as to lack credibility. For example, the 2021 MSDCF COE values are double the high end of the Morgan Stanley and Bank of America values that three Class I railroads and their shareholders relied upon for an enormous transaction. Even putting aside the other problems, the MSDCF as applied remains a very poor fit for the composite sample.

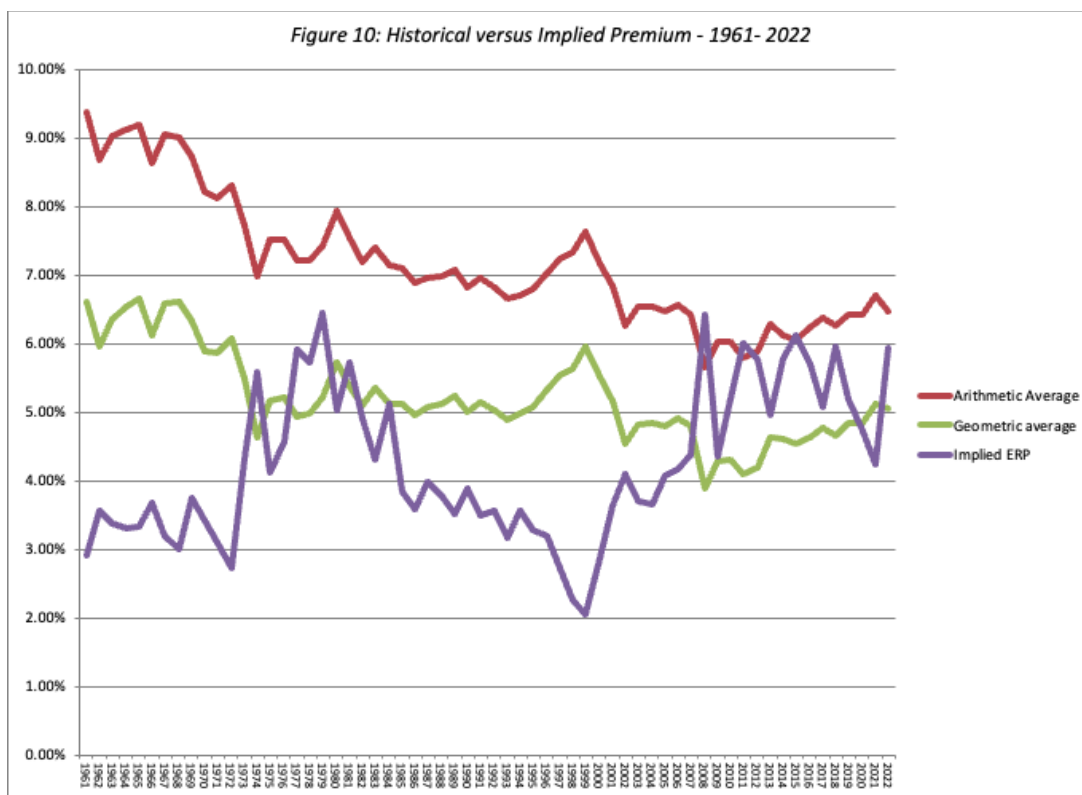
#### **VIII. THE BOARD’S CAPM VALUE IS ALSO OVERSTATED BY USE OF A HISTORICAL MRP**

WCTL has previously explained how the Board’s CAPM is distorted by use of a historical MRP instead of a current one that better captures the current opportunity cost of capital. As explained in Table 3 at page 11, *supra*, use of the Kroll-

recommended current MRP of 6.0%, together with the AAR's other inputs for the RFR and capital structure, results in a COE of 9.27% (120 basis points lower than under the AAR's CAPM COE), and an overall COC of 8.36% (222 basis points lower than the AAR's COC). Furthermore, those values are overstated compared to the Vanguard and Schwab projected return on equities for the next ten years and the Morgan Stanley and Bank of America estimates for the COC.

Professor Damodaran of the Stern School of Business of New York University addresses historical versus current MRPs at length in the 2023 version of his annual paper, *Equity Risk Premiums (ERP): Determinants, Estimation, and Implications – The 2023 Edition, Updated: March 23, 2023*, available at [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4398884](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4398884). Professor Damodaran notes, among other things, that “[s]ince the 2008 crisis, with its aftermath of low government bond rates and a simmering economic crisis, equity risk premiums in the United States have behaved differently than they have historically.” *Id.* at 14. Even if it made sense to apply historical MRPs before 2008 (when the Board added the MSDCF), that justification has dissipated.

Professor Damodaran further notes that “[t]he implied equity premium has deviated from the historical premium for the US equity market for most of the last few decades.” *Id.* at 97. The implied equity premium reflects the relationship of market prices, cashflows and estimated growth rates, which equates to a DCF analysis of the market as a whole. He presents the following chart to depict the gap between the historical and implied MRPs:



*Id.* at 97. The historical premiums, depicted in red and green, are not identical to, and are actually generally lower than, the Ibbotson, 1926-based MRP.<sup>24</sup>

Professor Damodaran further finds that the current implied premium has favorable correlation (at the 95% confidence interval), or predictive power, to actual returns for the next five and ten years, whereas the historical MRP actually shows similar correlation for the next five and ten years, but only as a *negative* or contra indicator. *Id.* at 125-26. “If predictive power were the only test, historical premiums clearly fail the

<sup>24</sup> Professor Damodaran also notes the “strong arguments that can be made for the use of geometric averages,” including that “the arithmetic average return is likely to overstate the premium,” and that “the argument for geometric average becomes stronger” when dealing with “expected returns over long periods (such as five or ten years).” *Id.* at 36-37.

test.” *Id.* at 126. Damodaran’s implied MRP yields a value of 5.94% as of January 1, 2023.

Mr. Gray also comments that the railroad industry beta, 0.9946, is the lowest since 2009. Gray VS at 36. That statement is correct, but he omits his previous assertions that railroad betas above 1.0 since 2009 “further demonstrate that railroad stocks are consistently more volatile and are regarded as having more risk than does the market generally.” *E.g.*, Gray 2021 VS at 37. The 2022 beta value plainly demonstrates that railroad stocks do not inherently pose more risk than the market generally. Furthermore, the railroad betas have been decreasing since reaching a recent high-water mark of 1.349 in 2013. The nine years of consecutive decreases, the magnitude of the decrease from 2021 to 2022 (1.0704 to 0.9946), and the fact that the beta is effectively a five-year rolling average, where the 2023 beta will incorporate four years of the 2022 beta, all indicate that the railroad beta may remain under 1.0 for some time to come.

As WCTL has noted previously, the CAPM is the dominant model for estimating the COE. The CAPM is also the model that Morgan Stanley used in its analysis of the CP-KCS merger, which analysis the Board endorsed in its decision approving the merger. It seems doubtful that Morgan Stanley could have reached its CAPM values while using a historical MRP.

## **IX. CONCLUSION**

For the reasons stated above, the Board should rely exclusively on the CAPM, albeit with a MRP not exceeding 6%, to calculate the COE portion of the COC. There is no sound basis for continuing to use the MSDCF, if there ever was.

Furthermore, prior COC values should be revised, or be subject to reexamination, insofar as they may rely on defective MSDCF EPS data and buybacks.

Respectfully submitted,

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Dated: May 2, 2023

Its Attorneys

## CERTIFICATE OF SERVICE

I hereby certify that on this 2nd day of May 2023, 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. 26) 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 11, 2023

January 11, 2023 05:50 AM GMT

## Freight Transportation | North America

## 4Q22 Preview: In Limbo

4Q results are likely to fall in that awkward space where investors expect misses but are not sure if this is the last cut. We expect the market to look for direction from leading indicators and external factors rather than the EPS to determine if bad news is good news or actually just bad news.

**This is going to be a tough earnings season for the Freight Transportation space.**

Fundamentals clearly ground to a halt in 3Q and any momentum carried into that quarter would have likely run out in 4Q as fundamentals deteriorated further. While we upgraded our sector view to In-line with our [2023 Outlook](#) as we started to see some signs of inflection in the data toward the end of 2022, **it is too early for that to show up in the numbers just yet + the rebound off the bottom still puts absolute numbers at a low level.** We expect 6 beats, 15 misses and 2 in-line prints in this quarter. **Investor positioning continues to be very difficult to determine** with the market going on several bullish and bearish weeks. On the one hand, the group is down, on average, 25% from its all time highs set this cycle, on the other hand, roughly half the group is within 10% of their all-time highs, making it hard to pound the table on a full positioning reset (though we did note in our outlook that 2023/24 sell side cons. EPS has fallen ~10% from the late 2022 peak). **We expect a noisy earnings season where some misses get bought and others get sold, reflecting the tussle between the bull and bear cases amongst investors.** Idiosyncratic stories (KNX, SNDR, TFII, CHRW, UPS, etc.) are likely to get the most attention.

**What we are looking for by vertical:**

- 1. Rail/IMC.** We got the first glimpse on the impact of cost inflation post the labor deal on the 3Q calls but the full 2023 impact may still be underestimated by the street. Coupled with choppiness on mix (coal, grain, IM), pricing (can Rails get price over inflation in a downturn), fuel headwinds and general inflation, **all eyes will be on 2023 guidance from the Rails. We expect OR guidance to be tough (if we get much detail at all) and a slow volume start to the year could make it hard for sentiment to turn bullish on the Rails.** We noted in our [2023 Outlook](#) that unlike TL/LTLs, **Rail cons. EPS has not really declined so far, putting numbers at risk.** We should also get more detail on what the normalized competitive environment looks like between the IMCs (UNP vs. BNSF, JBHT vs. KNX vs. SNDR) in 2023.
- 2. TL/LTL. 4Q is going to be rough for the Trucking companies** as we lap arguably the best Trucking quarter in history in 2021. Despite peak season turning out to be somewhat better than expected (or at least not as bad), the loss of high margin project business, slipping spot/contract rates and

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## Freight Transportation

North America

IndustryView

In-Line

## WHAT'S CHANGED? FROM: TO:

## ArcBest Corp (ARCB.O)

Price Target \$139.00 **\$138.00**

## J.B. Hunt Transport Services Inc. (JBHT.O)

Price Target \$170.00 **\$178.00**

## Knight Transportation Inc. (KNX.N)

Price Target \$85.00 **\$88.00**

## CSX Corporation (CSX.O)

Price Target \$23.00 **\$24.00**

## Saia, Inc. (SAIA.O)

Price Target \$185.00 **\$188.00**

## Heartland Express Inc. (HTLD.O)

Price Target \$17.00 **\$18.00**

## C.H. Robinson Worldwide Inc. (CHRW.O)

Price Target \$66.00 **\$67.00**

## Union Pacific Corp. (UNP.N)

Price Target \$177.00 **\$179.00**

## Hub Group Inc (HUBG.O)

Price Target \$86.00 **\$87.00**

## TFI International Inc (TFII.N)

Price Target \$131.00 **\$140.00**

## Canadian National Railway Co. (CNR.TO)

Price Target C\$157.00 **C\$156.00**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)

Challenged End Markets and Potentially Unsustainable OR

### PRICE TARGET \$24.00

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 ~14x, 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.

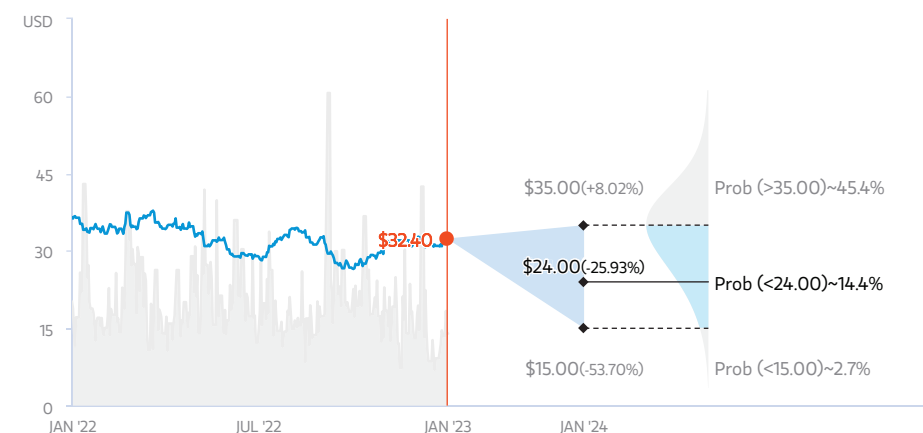
#### Consensus Price Target Distribution



Source: Refinitiv, Morgan Stanley Research

◆ Mean ◆ Morgan Stanley Estimates

### 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 10 Jan, 2023. 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](#)

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 10 Jan, 2023. 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](#)

#### BULL CASE

**\$35.00**

##### 19x Bull Case on NTM EPS

**Economic recovery accelerates.** Rather than tipping into a slowdown or a recession, consumer spending recovers/accelerates. Auto volume recovery acts as a tailwind to topline as coal upside also benefits 1H22, though moderating in 2H. Pricing remains strong and CSX capitalizes on accessorials, providing a tailwind to earnings.

#### BASE CASE

**\$24.00**

##### 14x Base Case on NTM EPS

**Skirting a Recession.** The economy stays in growth territory albeit at a more modest pace, but this is enough for the Freight cycle to inflect in 2H23. Revenues decline LSD% y/y as yield and volume growth prove tougher to come by as accessorials normalize, coal faces a difficult comp and IM faces tougher competition from truck, at least through 1H. Cost inflation moderates but outpaces yield growth and, as such, OR deteriorates y/y.

#### BEAR CASE

**\$15.00**

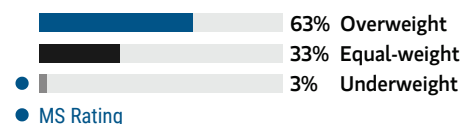
##### 10x Bear Case on NTM EPS

**From Recovery to Recession.** 2023 tips into full recession and industrial/bulk commodity end markets are hit the most while IM suffers from even more competition with truck as pricing normalizes. CSX falls short of revenue and EBIT expectations given volume softness due to tougher comps, a slower than expected auto recovery, and higher than anticipated cost inflation.

### UNDERWEIGHT THESIS

2023 is a new chapter for CSX with a new CEO who will be hoping that the pivot to growth which CSX has been trying to achieve for the last 2 years finally comes through. However, like other US Rail peers, tough comps on coal, truck competition, muted auto growth as well as headwinds on accessorials and cost inflation put OR at risk in 2023. Like US Rails peers, the stock has underperformed the sector for 2 years but also like peers, numbers and the multiple still have some room to find the floor, in our opinion, keeping us UW.

#### Consensus Rating Distribution



Source: Refinitiv, Morgan Stanley Research

#### Risk Reward Themes

Contrarian: *Negative*  
Secular Growth: *Negative*

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

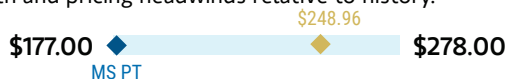
## Risk Reward – Norfolk Southern Corp. (NSC.N)

Cyclical and Secular Topline Risk Face High PSR Expectations

### PRICE TARGET \$177.00

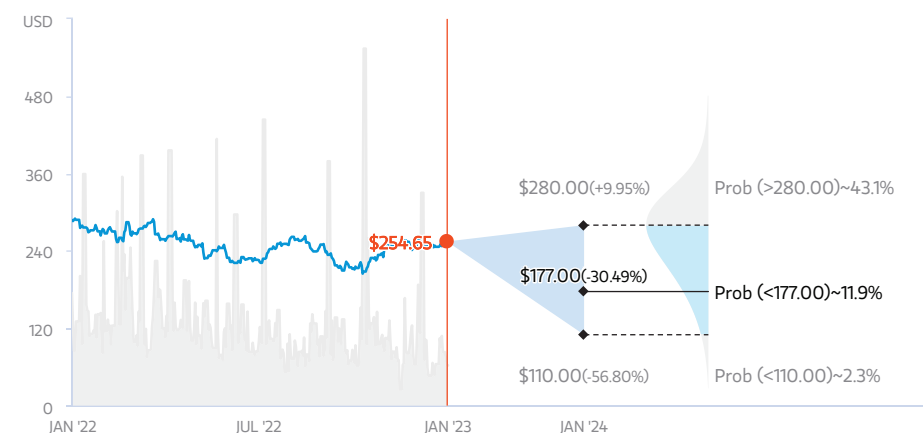
We use a 10-year DCF assuming 7.1% WACC and terminal cash flow perpetual growth rate of 1.5%. Our DCF valuation implies a fwd P/E of ~13.0x, which is below NSC's historical avg. given our cautious outlook on rails. We believe US rails deserve to trade at discounts to historical valuation due to structural growth and pricing headwinds relative to history.

#### Consensus Price Target Distribution



Source: Refinitiv, Morgan Stanley Research

### RISK REWARD CHART AND OPTIONS IMPLIED PROBABILITIES (12M)



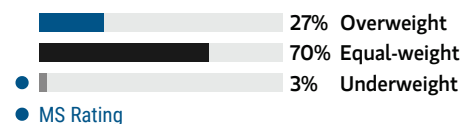
Key: — Historical Stock Performance ● Current Stock Price ◆ Price Target

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 10 Jan, 2023. 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

We believe NSC continues to face secular headwinds given end market exposure and we expect headwinds to continue. While the company has executed on PSR, coal gains are likely to be transitory in nature and the rail continues to face the threat of share gain from truck. Valuation remains expensive relative to history as we believe consensus expectations may be too high for NSC given the significant OR and volume traction they must demonstrate.

#### Consensus Rating Distribution



Source: Refinitiv, Morgan Stanley Research

#### Risk Reward Themes

Secular Growth: *Negative*  
Market Share: *Negative*  
Contrarian: *Negative*

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

#### BULL CASE

**\$280.00**

##### 20x Bull Case on NTM EPS

**Economic recovery accelerates.** Rather than tipping into a slowdown or a recession, consumer spending recovers/accelerates and Industrial/bulk commodity end markets keep up while IM competition with truck eases (though some share is still lost to to expedited modes like Air and Truck occurs). OR traction continues while coal and auto markets act as tailwinds to topline.

#### BASE CASE

**\$177.00**

##### 13x Base Case on NTM EPS

**Skirting a Recession.** The economy stays in growth territory albeit at a more modest pace, but this is enough for the Freight cycle to inflect in 2H23. Revenues decline LSD% as volume and yield growth prove harder to come by. IM suffers from service issues and share gains from truck do not materialize esp. in 1H given the softer TL market. Meanwhile, cost inflation weighs on expenses (esp. labor) driving OR to deteriorate y/y even despite the easy comp.

#### BEAR CASE

**\$110.00**

##### 10.0x Bear Case on NTM EPS

**From Recovery to Recession.** 2023 tips into a full recession. IM suffers from even more competition with truck and coal tailwinds reverse sharply. Volumes and OR fall short of market expectations.

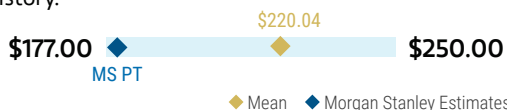
## Risk Reward – Union Pacific Corp. (UNP.N)

We See Cyclical + Secular Headwinds and PSR OR Expectations Are High

### PRICE TARGET \$179.00

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 ~17x, which is modestly below 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.

#### Consensus Price Target Distribution

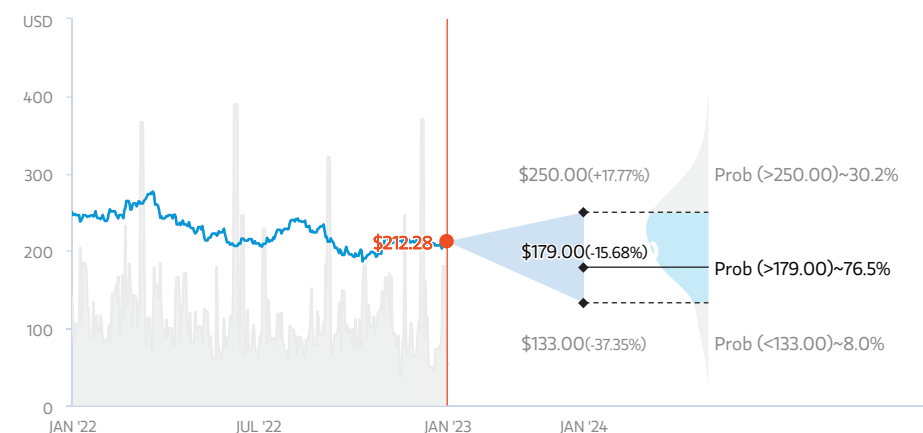


Source: Refinitiv, Morgan Stanley Research

### EQUAL-WEIGHT THESIS

We believe investor sentiment around UNP remains neutral to leaning positive as the stock likely remains a "default" core holding in a robust macro with a big infrastructure bill on the way. Progress toward 55% OR continues but gains may be harder to come by, secular volume headwinds remain and competition could intensify.

### 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 10 Jan, 2023. 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](#)

#### Consensus Rating Distribution



● MS Rating

Source: Refinitiv, Morgan Stanley Research

#### Risk Reward Themes

Secular Growth: *Negative*  
Market Share: *Negative*  
Contrarian: *Negative*

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

#### BULL CASE

**\$250.00**

##### 20x Bull Case on NTM EPS

**Economic recovery accelerates.** Rather than tipping into a slowdown or a recession, consumer spending recovers/accelerates.. Volumes benefit (driven by autos and coal) from easing congestion and improving service levels, and pricing strengthens, acting as a tailwind to OR. IM sees less competition from truck as spot spikes again and OR meets market expectations.

#### BASE CASE

**\$179.00**

##### 17x Base Case on NTM EPS

**Skirting a Recession.** The economy stays in growth territory albeit at a more modest pace, but this is enough for the Freight cycle to inflect in 2H23. Carloads are ~flat in 2023 given the comp remains relatively easy and congestion eases. Pricing moderates as FS normalizes and coal mix benefits ease though yields manage to stay just positive. However, cost inflation means OR deteriorates y/y.

#### BEAR CASE

**\$133.00**

##### 16x Bear Case on NTM EPS

**From Recovery to Recession.** 2023 tips into a full recession and network congestion persists while the strong mix markets like coal normalize quickly, limiting upside to volumes and weighing on yields. Meanwhile accessories normalizing provide additional pressure on pricing. IM conversion continues to lag while OR deteriorates by over a pt.

## EXHIBIT B

Excerpts from Morgan Stanley's Report  
on the Transportation Industry dated January 10, 2022

January 10, 2022 06:00 AM GMT

## Freight Transportation | North America

## 4Q21 Preview: The Show Goes On (For Now)

4Q results are likely to stick closely to the template of 2Q and 3Q. 2022 guidance is unlikely to deviate too much from consensus as we wait and watch for what 2022 is shaping up to be. Positioning shifts could drive volatility.

**No major shifts in 4Q but 2022 could be a different story.** The unprecedented cycle that brought us to this point likely continued unabated in 4Q. Based on early December updates at conferences and catch-up calls with management teams, tight supply chains and a strong macro drove strong topline conditions at the Transports though relative to 3Q, a tougher comp and higher inflation played a little spoilsport. We expect 10 beats, 5 misses and 7 in-line prints vs. current consensus. **As always in 4Q, forward commentary/FY guidance will matter more than the print itself though we expect more of a cat-and-mouse game this year.** Current conditions are expected to last at least into 1Q if not 1H and we expect more mgmt. teams to sound constructive on the near-term, even if some harbor concerns about 2H22. **The “tale of two halves” possibility for 2022 (see our 2022 Outlook [here](#)) and lack of COVID and cycle visibility means that most companies are likely to issue guidance close to current consensus - for now - and wait to see how the year plays out.** This means that, for the third quarter in a row, **investor positioning (rather than fundamentals) will likely drive stock moves and volatility has been high in the last few weeks.** With heavy polarization between cycle bulls and bears, there appears to be growing consensus around implementing the late-cycle playbook though the debate appears to be around the exact timing of doing so (is now too early or just right?). As we noted in our December [sector downgrade](#) **the group is trading at close to peak multiples on very peak earnings, which could leave the stocks vulnerable if guidance doesn’t push consensus higher, in our view.**

**What we are looking for by sub sector:**

- 1. Rails/IMCs:** 4Q was another quarter of tough volumes (4Q down ~3% y/y) and congestion issues for the Rails which has already driven some (like UNP) to cut FY guidance intra-quarter. While the Rails (and investors) seem to be counting on the traditional rebound thesis for 2022, we flagged the risk in our Outlook piece that consensus expectations were too high. **The key will be how much volume and pricing growth expectations will be offset by rising inflation / labor sourcing issues (as recently flagged at conferences) and lapping accessories comps in 2022 if congestion eases.**
- 2. TL/LTLs:** The Trucking names will likely continue to sound extremely bullish on current conditions going into 2022 which should drive very

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## Freight Transportation

North America  
IndustryView Cautious

| What's Changed                                | FROM     | TO              |
|-----------------------------------------------|----------|-----------------|
| <b>ArcBest Corp (ARCB.O)</b>                  |          |                 |
| Price Target                                  | \$140.00 | <b>\$145.00</b> |
| <b>Old Dominion Freight Line Inc (ODFL.O)</b> |          |                 |
| Price Target                                  | \$330.00 | <b>\$336.00</b> |
| <b>Knight Transportation Inc. (KNX.N)</b>     |          |                 |
| Price Target                                  | \$77.00  | <b>\$79.00</b>  |
| <b>C.H. Robinson Worldwide Inc. (CHRW.O)</b>  |          |                 |
| Price Target                                  | \$60.00  | <b>\$65.00</b>  |
| <b>Saia, Inc. (SAIA.O)</b>                    |          |                 |
| Price Target                                  | \$200.00 | <b>\$210.00</b> |

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

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

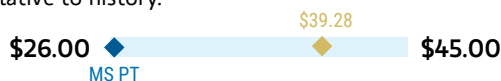
## Risk Reward – CSX Corporation (CSX.O)

Challenged End Markets and Potentially Unsustainable OR

### PRICE TARGET \$26.00

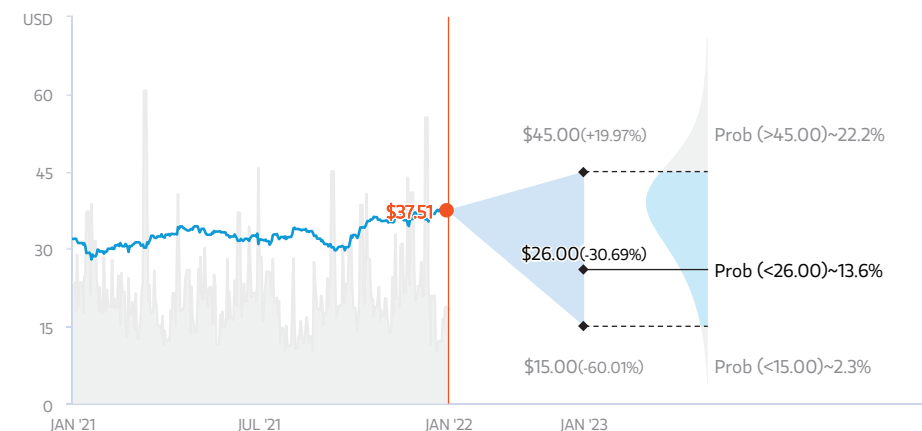
We use a 10-year DCF assuming 7.5% WACC and terminal cash flow perpetual growth rate of 1.5%. Our DCF valuation implies a fwd P/E of ~15x, which is modestly below CSX's historical average. We believe US rails deserve to trade at discounts to historical valuation due to structural growth and pricing headwinds relative to history.

#### Consensus Price Target Distribution



Source: Refinitiv, Morgan Stanley Research

### RISK REWARD CHART AND OPTIONS IMPLIED PROBABILITIES (12M)



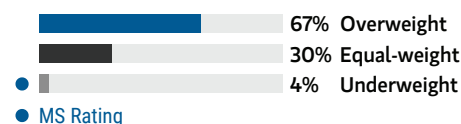
Key: — Historical Stock Performance ● Current Stock Price ◆ Price Target

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 07 Jan, 2022. 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

We believe the rising macro tide is offset by several key end markets facing cyclical and secular threats (auto, coal, intermodal), pricing gains may be decelerating, low hanging cost opportunities may have already been taken, OR is likely stable but hard to improve from here. Sentiment is not as frothy as other US Rails but valuation is significantly higher than history. The combination of topline headwinds, high bar on cons. EPS and high multiple keeps us UW.

#### 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

\$45.00

##### 25x Bull Case on NTM EPS

**Recovery accelerates.** The broader market recovery continues to be robust and the industrial economy recovery accelerates. Auto volume recovery acts as a tailwind to topline as coal upside also benefits 1H22, though moderating in 2H. Pricing remains strong and CSX capitalizes on accessorials, providing a tailwind to earnings.

#### BASE CASE

\$26.00

##### 15x Base Case on NTM EPS

**Steady recovery.** The broader economy continues to see growth. CSX falls short of revenue and EBIT expectations given the tougher comps on volume and OR. While coal sees gains in 1H, these unwind in 2H and into 2023, keeping the market from paying a full multiple for the gains. Auto recovery meets expectations but cost inflation acts as a headwind, limiting OR upside.

#### BEAR CASE

\$15.00

##### 10.0x Bear Case on NTM EPS

**Recovery turns sluggish.** The broader economy sees more moderated growth and industrial /bulk commodity end markets are hit the most while IM suffers from even more competition with truck as pricing normalizes. CSX falls short of revenue and EBIT expectations given volume softness due to tougher comps, a slower than expected auto recovery, and higher than anticipated cost inflation.

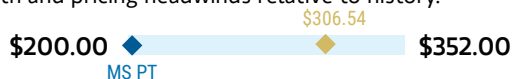
## Risk Reward – Norfolk Southern Corp. (NSC.N)

Top Rail UW: Cyclical and Secular Topline Risk Face High PSR Expectations

### PRICE TARGET \$200.00

We use a 10-year DCF assuming 7.5% WACC and terminal cash flow perpetual growth rate of 1.5%. Our DCF valuation implies a fwd P/E of ~14.0x, which is below 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.

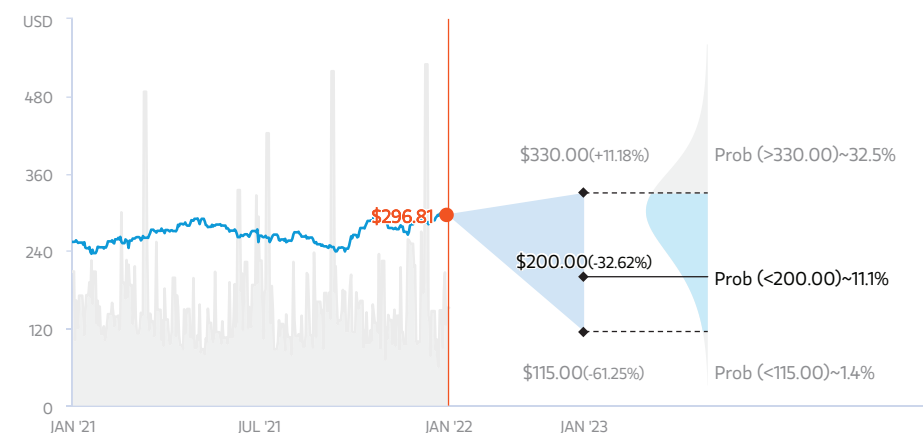
#### Consensus Price Target Distribution



Source: Refinitiv, Morgan Stanley Research

◆ Mean ◆ Morgan Stanley Estimates

### RISK REWARD CHART AND OPTIONS IMPLIED PROBABILITIES (12M)



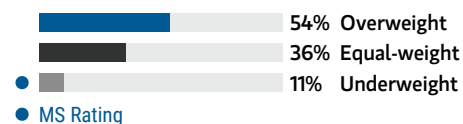
Source: Refinitiv, Morgan Stanley Research, Morgan Stanley Institutional Equities Division. The probabilities of our Bull, Base, and Bear case scenarios playing out were estimated with implied volatility data from the options market as of 07 Jan, 2022. All figures are approximate risk-neutral probabilities of the stock reaching beyond the scenario price in either three-months' or one-years' time. View explanation of Options Probabilities methodology [here](#)

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 07 Jan, 2022. 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

We believe NSC continues to face secular headwinds given end market exposure and we expect headwinds to continue. While the company has executed on PSR, coal gains are likely to be transitory in nature and the rail continues to face the threat of share gain from truck. Valuation remains expensive relative to history as we believe consensus expectations may be too high for NSC given the significant OR and volume traction they must demonstrate.

#### Consensus Rating Distribution



Source: Refinitiv, Morgan Stanley Research

#### Risk Reward Themes

Secular Growth: *Negative*  
Market Share: *Negative*  
Contrarian: *Negative*

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

#### BULL CASE

**\$330.00**

##### 25x Bull Case on NTM EPS

**Recovery accelerates.** The broader economy growth stays robust / accelerates and Industrial/bulk commodity end markets keep up while IM competition with truck eases (though some share is still lost to expedited modes like Air and Truck occurs). OR traction continues while coal and auto markets act as tailwinds to topline.

#### BASE CASE

**\$200.00**

##### 15x Base Case on NTM EPS

**Steady recovery.** The broader economy sees "normalized" growth in 2022. While coal and autos see a rebound, coal proves transitory and autos still see some headwinds. IM suffers from competition with truck while OR and volume improvement fall short of elevated market expectations.

#### BEAR CASE

**\$115.00**

##### 10.0x Bear Case on NTM EPS

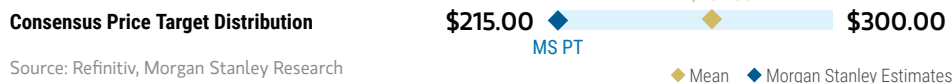
**Recovery turns sluggish.** The broader economy growth turns sluggish with Industrial/bulk commodity end markets hit hard. IM suffers from even more competition with truck and the auto recovery is delayed into 2023. Volumes and OR fall short of market expectations.

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

We See Cyclical + Secular Headwinds and PSR OR Expectations Are High

### PRICE TARGET \$215.00

We use a 10-year DCF assuming 7.2% WACC and terminal cash flow perpetual growth rate of 1.5%. Our DCF valuation implies a fwd P/E of ~18x, which is relatively inline with UNP's historical 5-year avg. We believe US rails deserve to trade at discounts to historical valuation due to structural growth and pricing headwinds relative to history.



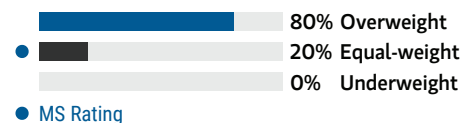
### EQUAL-WEIGHT THESIS

We believe investor sentiment around UNP remains neutral to leaning positive as the stock likely remains a "default" core holding in a robust macro with a big infrastructure bill on the way. Progress toward 55% OR continues but gains may be harder to come by, secular volume headwinds remain and competition could intensify.

### RISK REWARD CHART AND OPTIONS IMPLIED PROBABILITIES (12M)



### Consensus Rating Distribution



### Risk Reward Themes

**Secular Growth:** Negative  
**Market Share:** Negative  
**Contrarian:** Negative

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

#### BULL CASE

**\$285.00**

##### 26.5x Bull Case on NTM EPS

**Recovery accelerates.** The broader economy continues to see robust growth. Volumes benefit (driven by autos and coal) from easing congestion and improving service levels, and pricing strengthens, acting as a tailwind to OR. IM sees usual competition from truck and OR meets market expectations.

#### BASE CASE

**\$215.00**

##### 19x Base Case on NTM EPS

**Steady recovery.** Carloads see some modest upside in 2022 on easier comps as congestion eases, particularly in autos and possibly in coal. Pricing sees stronger levels than in recent years and OR sees some benefit but risks falling short of expectations.

#### BEAR CASE

**\$165.00**

##### 15x Bear Case on NTM EPS

**Recovery turns sluggish.** Growth in the broader economy continues but network congestion persists and the auto recovery falls short of expectations, limiting upside to volumes. Accessorial regulations provide some pressure on pricing. IM conversion continues to lag while OR improvement falls short of market expectations.

## EXHIBIT C

Credit Suisse Report for CSX dated October 21, 2022

# CSX Corporation

## Another strong quarter as yields and service improvement drive EPS beat; CEO Hinrichs advocates for ONE CSX approach

Railroads | Company Update

## CSX

Target price (12M, US\$) **36.00**  
Outperform

- **Robust yield growth, service improvement drive EPS beat:** CSX posted 3Q22 EPS of \$0.52, up +21% y-y, above our \$0.48 and Street's \$0.49 estimates. Results included \$42 mil. in one-time accruals due to union labor agreements, without which EPS would have been \$0.54. OR deteriorated 310bps y-y to 59.5% (including accruals), but beat our target by 20bp. Revenue grew +18.3% y-y to \$3.9 bil., \$229 mil. above our target, driven by yield growth of +16.5% y-y (boosted by fuel surcharges), which beat our target by 6.6%. Carloads grew +1.5% y-y, beating our target by +0.2%, led by autos, ag. products and intermodal, but fertilizers, chemicals and coal saw volume declines, lagging our target.
- **New CEO Hinrichs inherits business seeing notable improvement, but facing macro challenges:** On his first earnings call as the new CEO of CSX, Joe Hinrichs advocated the ONE CSX approach, noting the ways the company could benefit from improving relations with employees and focusing on service and transparency with customers. He touted the long-term opportunity from adding volume at high incremental margins – but noted that this could only be made possible through better service. We have been encouraged by improvements in network fluidity through the quarter, which should clear the way for additional capacity while lowering costs in the coming quarters. In contrast to railroad peer UNP, which seemed to be struggling to handle inflationary cost pressures, CSX seems to be taking price and driving efficiencies sufficient to manage through these headwinds. The company reaffirmed its outlook for double-digit revenue and operating income growth in 2022, both of which now seem like fairly easy hurdles to clear (we target full-year revenue growth of +18% and operating income growth of +12%).
- **Maintain Outperform, \$36 TP:** We reiterate our Outperform rating and \$36 target price which we base on a 17.5x target P/E on our 2023e EPS. We raise our 2022 EPS estimate to \$1.88 from \$1.85 (reflecting the 3Q beat, lowering 4Q EPS to \$0.46 from \$0.48). We keep our 2023 and 2024 EPS estimates at \$2.05 and \$2.25, respectively. **CSX remains among our top picks, with the stock at just 13.2x our 2023e EPS, a level that has historically proven inexpensive** versus its historical one-standard deviation trading range of 13x-19.5x forward EPS. We remain concerned about economic risk but view the current valuation as fairly compensating for macro downside. Furthermore, while our 2023e EPS of \$2.05 is above Street's \$1.92, we see room to outperform given our target includes zero margin improvement despite improved network fluidity.

### Financial and valuation metrics

| Year                           | 12/21A   | 12/22E                   | 12/23E   | 12/24E    |
|--------------------------------|----------|--------------------------|----------|-----------|
| EPS (CS adj.) (US\$)           | 1.56     | 1.88                     | 2.05     | 2.25      |
| Prev. EPS (US\$)               | -        | 1.85                     | -        | -         |
| Revenue (US\$ m)               | 12,522.0 | 14,822.0                 | 15,398.0 | 16,052.4  |
| P/OCF (x)                      | 16.6     | 10.5                     | 9.9      | 8.8       |
| EV/EBITDA (current)            | 11.1     | 10.0                     | 9.7      | 9.2       |
| Net debt (US\$ m)              | 14,605   | 16,156                   | 16,228   | 16,101    |
| ROIC (%)                       | 14.26    | 15.38                    | 15.47    | 15.90     |
| Number of shares (m)           | 2,141.24 | IC (current, US\$ m)     |          | 28,105.00 |
| Net debt (Next Qtr., US\$ m)   | 16,156.1 | Dividend (current, US\$) |          | 0.40      |
| Net debt/tot eq (Next Qtr., %) | 122.4    |                          |          |           |

Source: Company data, Refinitiv, Credit Suisse estimates

|                           |               |
|---------------------------|---------------|
| Price (20 Oct 22, US\$)   | 27.08         |
| 52-week price range       | 37.80 - 26.51 |
| Enterprise value (US\$ m) | 74,141        |

### Research Analysts

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### Share price performance



On 20-Oct-2022 the S&P 500 INDEX closed at 3585.62Daily  
Oct21, 2021 - Oct20, 2022, 10/21/21 = US\$35.01

| Quarterly EPS | Q1   | Q2   | Q3   | Q4   |
|---------------|------|------|------|------|
| 2021A         | 0.31 | 0.40 | 0.43 | 0.42 |
| 2022E         | 0.39 | 0.51 | 0.52 | 0.46 |
| 2023E         | 0.46 | 0.54 | 0.53 | 0.51 |

**DISCLOSURE APPENDIX AT THE BACK OF THIS REPORT CONTAINS IMPORTANT DISCLOSURES, ANALYST CERTIFICATIONS, LEGAL ENTITY DISCLOSURE AND THE STATUS OF NON-US ANALYSTS.** US Disclosure: Credit Suisse does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the Firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision.

## CSX Corporation (CSX)

Price (20 Oct 2022): US\$27.08

Target Price: 36.00

Analyst: Ariel Rosa

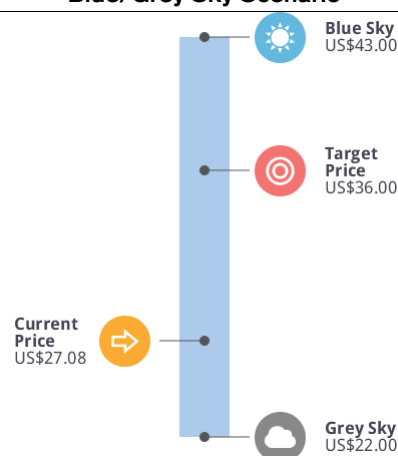
Rating: Outperform

| Income Statement             | 12/21A   | 12/22E   | 12/23E   | 12/24E   |
|------------------------------|----------|----------|----------|----------|
| Revenue (US\$ m)             | 12,522.0 | 14,822.0 | 15,398.0 | 16,052.4 |
| EBITDA (US\$ m)              | 6,665    | 7,368    | 7,645    | 8,043    |
| Depr. & amort.               | (1,420)  | (1,473)  | (1,535)  | (1,609)  |
| EBIT (US\$)                  | 5,245    | 5,895    | 6,109    | 6,435    |
| Net interest exp             | (722)    | (733)    | (740)    | (760)    |
| PBT (US\$)                   | 4,602    | 5,276    | 5,469    | 5,775    |
| Income taxes                 | (1,086)  | (1,235)  | (1,285)  | (1,357)  |
| Minorities                   | -        | -        | -        | -        |
| Reported net income (US\$)   | 3,516    | 4,040    | 4,184    | 4,418    |
| Other NPAT adjustments       | 0        | 0        | 0        | 0        |
| Adjusted net income          | 3,516    | 4,040    | 4,184    | 4,418    |
| Cash Flow                    | 12/21A   | 12/22E   | 12/23E   | 12/24E   |
| EBIT                         | 5,245    | 5,895    | 6,109    | 6,435    |
| Net interest                 | (722)    | (733)    | (740)    | (760)    |
| Change in working capital    | (13)     | 32       | (102)    | (17)     |
| CAPEX                        | (1,266)  | (1,974)  | (2,290)  | (2,340)  |
| Free cashflow to the firm    | 3,833    | 3,551    | 3,328    | 3,669    |
| Acquisitions                 | -        | -        | -        | -        |
| Divestments                  | 529      | 39       | 60       | 60       |
| Cash flow from investments   | (1,877)  | (2,189)  | (2,290)  | (2,340)  |
| Changes in Net Cash/Debt     | (574)    | (1,551)  | (72)     | 127      |
| Balance Sheet (US\$)         | 12/21A   | 12/22E   | 12/23E   | 12/24E   |
| Assets                       |          |          |          |          |
| Cash & cash equivalents      | 2,239    | 2,527    | 2,455    | 2,582    |
| Total current assets         | 3,873    | 4,407    | 4,477    | 4,660    |
| Total assets                 | 40,531   | 42,415   | 43,239   | 44,153   |
| Liabilities                  |          |          |          |          |
| Total current liabilities    | 2,233    | 2,470    | 2,510    | 2,549    |
| Total liabilities            | 27,031   | 29,214   | 29,254   | 29,293   |
| Total liabilities and equity | 40,531   | 42,415   | 43,239   | 44,153   |
| Net debt                     | 14,605   | 16,156   | 16,228   | 16,101   |
| Per share                    | 12/21A   | 12/22E   | 12/23E   | 12/24E   |
| No. of shares (wtd avg)      | 2,255    | 2,145    | 2,044    | 1,963    |
| CS adj. EPS                  | 1.56     | 1.88     | 2.05     | 2.25     |
| Prev. EPS (US\$)             | -        | 1.85     | -        | -        |
| Dividend (US\$)              | 0.37     | 0.40     | 0.44     | 0.48     |
| Free cash flow per share     | 1.70     | 1.66     | 1.63     | 1.87     |
| Earnings                     | 12/21A   | 12/22E   | 12/23E   | 12/24E   |
| Sales growth (%)             | 18.3     | 18.4     | 3.9      | 4.2      |
| EBIT growth (%)              | 20.2     | 12.4     | 3.6      | 5.3      |
| Net profit growth (%)        | 27.2     | 14.9     | 3.6      | 5.6      |
| EPS growth (%)               | 29.9     | 20.8     | 8.7      | 9.9      |
| EBITDA margin (%)            | 53.2     | 49.7     | 49.6     | 50.1     |
| EBIT margin (%)              | 41.9     | 39.8     | 39.7     | 40.1     |
| Pretax margin (%)            | 36.8     | 35.6     | 35.5     | 36.0     |
| Net margin (%)               | 28.1     | 27.3     | 27.2     | 27.5     |
| Valuation                    | 12/21A   | 12/22E   | 12/23E   | 12/24E   |
| EV/Sales (x)                 | 5.80     | 5.00     | 4.82     | 4.62     |
| P/E (x)                      | 17.4     | 14.4     | 13.2     | 12.0     |
| Price to book (x)            | 4.5      | 4.4      | 4.0      | 3.6      |
| Asset turnover               | 0.3      | 0.3      | 0.4      | 0.4      |
| Returns                      | 12/21A   | 12/22E   | 12/23E   | 12/24E   |
| ROE stated-return on (%)     | 26.4     | 30.3     | 30.8     | 30.7     |
| ROIC (%)                     | 14.3     | 15.4     | 15.5     | 15.9     |
| Gearing                      | 12/21A   | 12/22E   | 12/23E   | 12/24E   |
| Net debt/equity (%)          | 108.2    | 122.4    | 116.0    | 108.3    |
| Interest coverage ratio (X)  | 7.3      | 8.0      | 8.3      | 8.5      |
| Quarterly EPS                | Q1       | Q2       | Q3       | Q4       |
| 2021A                        | 0.31     | 0.40     | 0.43     | 0.42     |
| 2022E                        | 0.39     | 0.51     | 0.52     | 0.46     |
| 2023E                        | 0.46     | 0.54     | 0.53     | 0.51     |

## Company Background

CSX Corporation, together with its subsidiaries, provides rail-based freight transportation services and the transportation of intermodal containers and trailers, focused on the Eastern U.S.

## Blue/Grey Sky Scenario



## Our Blue Sky Scenario (US\$)

43.00

To arrive at our Blue Sky scenario, we assume 5% EPS growth above our target for the year-ahead, which is consistent with a strong EPS growth year for CSX. We then apply a target P/E multiple of 20x, which is at the high-end of CSX's historical P/E range and would reflect a premium to the S&P500, which we feel is appropriate for North American rails. We believe CSX has the ability to outperform these targets as it improves service on its network.

## Our Grey Sky Scenario (US\$)

22.00

To arrive at our Grey Sky scenario, we assume a 15% short-fall on EPS growth relative to our year-ahead target, which would be consistent with a challenging year for CSX. We then apply a target P/E multiple of 12.5x, which represents a discount to the S&P500 and is near the low-end of the company's historical one-standard deviation forward P/E trading range.

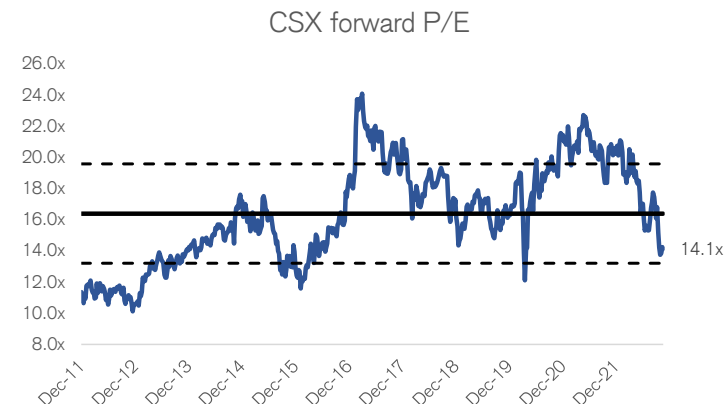
## Share price performance



On 20-Oct-2022 the S&P 500 INDEX closed at 3585.62  
Daily Oct21, 2021 - Oct20, 2022, 10/21/21 = US\$35.01

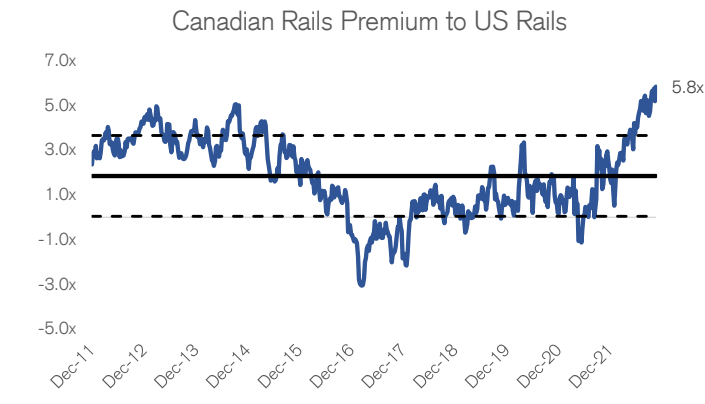
Source: FTI, Company data, Refinitiv, Credit Suisse Securities (EUROPE) LTD. Estimates

**Figure 1: CSX's forward P/E now trades near its lowest levels since the onset of the pandemic**



Source: Company data, Credit Suisse estimates, the BLOOMBERG PROFESSIONAL™ service

**Figure 2: U.S. rails continue to trade near their biggest discount to their Canadian peers in the past decade**



Source: Company data, Credit Suisse estimates, the BLOOMBERG PROFESSIONAL™ service

## Summary of 3Q results

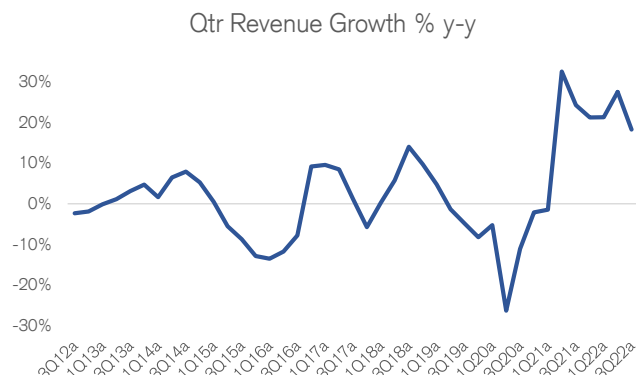
**CSX consolidated revenues** were \$3.9 billion, up +18% y-y and \$229 million above our estimate. Freight revenues were \$3.4 billion, up +18% y-y as all three segments reported double digit y-y revenue growth led by Coal (up +36% y-y), Intermodal (up +19% y-y) and Total Merchandise (up +14% y-y).

Notably, automotive led the **total merchandise** segment in both revenue per carload (+16% y-y vs. our estimate of +11%) and volume growth (+13.3% y-y vs. our estimate of +12.5%). Management noted continued strength in the automotive market and improving chip supply, resulting in greater finished vehicles inventories that need to be moved. Agriculture and Food Products also saw double digit growth in volume (+10% y-y vs. our estimate of 8% y-y) and yield (+13% y-y vs. our estimate of 8% y-y), driven by improved cycle times and improved demand for grain, wheat, and ethanol.

**Coal** volumes were down -2% y-y compared to our estimate of -0.5% attributable to production and infrastructure constraints along with a shortage of manpower. However, this was more than offset by strong export benchmarks which drove coal yields up +38% y-y (+590bps above our estimate).

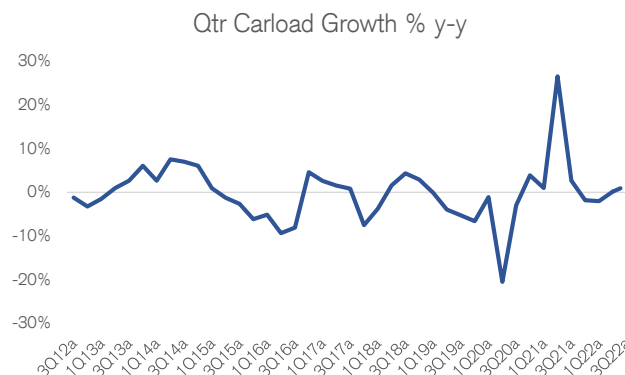
Finally, **intermodal** demand persisted during the quarter, as volumes were up +2.4% y-y, in-line with our estimate and driven by customers looking for more cost-effective transportation alternatives to trucks.

**Figure 3: Revenue increased +18% y-y, above our +11% estimate, driven primarily by higher yields; CSX expects double-digit revenue growth for the full year 2022**



Source: Company data, Credit Suisse estimates

**Figure 4: Carloads were up +1.5% y-y, a 130bps sequential improvement reflecting improved service levels that freed up greater capacity**

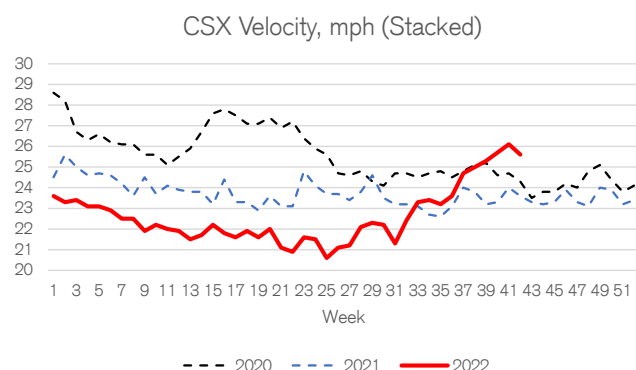


Source: Company data, Credit Suisse estimates

**Operating income** was \$1.6 billion, up +10% y-y, and \$101 million above our estimate. Labor and Fringe expense saw a meaningful step up to \$759 million from \$684 million in 2Q due to a \$97 million impact from cost inflation related to tentative agreements with labor unions in September 2022, \$42 million of which relates to prior period labor and benefits. OR for the quarter was 59.5%, which included \$42 million in prior period labor expense and represents a 310bps y-y deterioration.

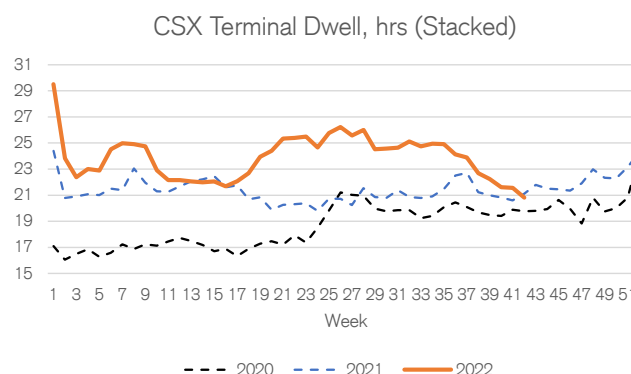
T&E headcount reached its highest level since the pandemic growing +7.2% y-y in 3Q. With a robust hiring pipeline underway, management anticipates accelerated headcount growth with improved attrition rates in 4Q.

**Figure 5: Key metrics of network fluidity showed significant signs of improvement in 3Q22, most notably velocity, which exceeded levels since the onset of the pandemic**



Source: Company data, Credit Suisse estimates, Surface Transportation Board

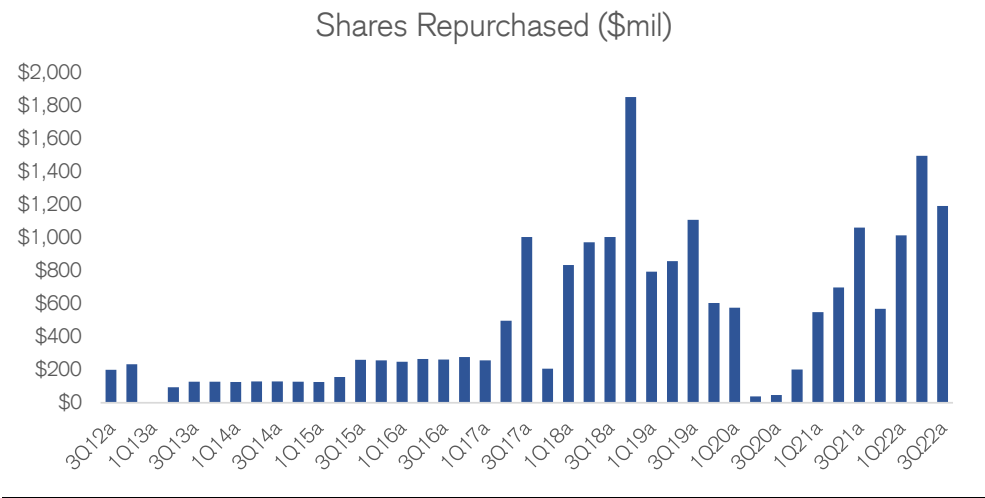
**Figure 6: Terminal dwell has also shown meaningful improvements in 3Q, with recent weeks exceeding 2021 levels**



Source: Company data, Credit Suisse estimates, Surface Transportation Board

CSX generated \$2.9 billion in free cash flow YTD through 3Q22, roughly in line with the same period a year ago. However, net of proceeds from property dispositions, 3Q YTD free cash flow grew +8.4% y-y. During the quarter, CSX repurchased \$1.2 billion worth of shares while issuing \$2 billion of debt, further reducing shares outstanding and more than tripling its cash balance since the previous quarter. At the end of the quarter, the company's leverage profile was at 2.2x net debt to TTM EBITDA, consistent with 3Q21 levels.

**Figure 7: CSX has conducted over \$3.7 billion in share repurchases and \$650 million in dividend distribution YTD while maintaining strong liquidity**



Source: Company data, Credit Suisse estimates

## Valuation Methodology and Risks

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### Target Price and Rating

#### Valuation Methodology and Risks: (12 months) for CSX Corporation (CSX.OQ)

**Method:** Our \$36 target price is based on an 17.5x target multiple on our 2023 EPS estimate, near the average of its long-term forward P/E range of 13x to 20x forward earnings. We believe our Outperform rating and target multiple are justified by CSX' s strong cash flow generation and earning potential, with under-appreciated upside to earnings from volume growth at high incremental margins.

**Risk:** Risks to achieving our price target of \$36 and our Outperform rating for CSX are economic weakness, service difficulties, fuel price pressures, management changes, a cyclical rotation out of the railroad sector, difficulties in achieving the objectives of the One Plan, and service disruptions stemming from potential industry consolidation.

**Companies Mentioned** (Price as of 20-Oct-2022)  
**CSX Corporation** (CSX.OQ, \$27.08, OUTPERFORM, TP \$36.0)

## Disclosure Appendix

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I, Ariel Rosa, certify that (1) the views expressed in this report accurately reflect my personal views about all of the subject companies and securities and (2) no part of my compensation was, is or will be directly or indirectly related to the specific recommendations or views expressed in this report.

### 3-Year Price and Rating History for CSX Corporation (CSX.OQ)

| CSX.OQ    | Closing Price | Target Price |        |
|-----------|---------------|--------------|--------|
| Date      | (US\$)        | (US\$)       | Rating |
| 26-Nov-19 | 23.98         | 27.67        | O      |
| 16-Jan-20 | 25.58         | 27.33        |        |
| 17-Jan-20 | 25.47         | 28.00        |        |
| 07-Apr-20 | 20.38         | 23.00        |        |
| 07-Jul-20 | 22.84         | 26.00        |        |
| 23-Jul-20 | 23.84         | 27.67        |        |
| 02-Oct-20 | 25.72         | 29.67        |        |
| 22-Oct-20 | 27.24         | 30.33        |        |
| 15-Nov-20 | 30.20         | 34.00        |        |
| 11-Jan-21 | 32.00         | 38.00        |        |
| 22-Jan-21 | 29.21         | 37.67        |        |
| 09-Apr-21 | 32.76         | 38.33        |        |
| 30-Jun-21 | 32.08         | 38.00        |        |
| 22-Jul-21 | 32.67         | 39.00        |        |
| 27-Jun-22 | 29.32         | 35.00        | *      |
| 21-Jul-22 | 30.99         | 37.00        |        |
| 12-Aug-22 | 34.35         | 41.00        |        |
| 15-Sep-22 | 30.17         | 39.00        |        |
| 10-Oct-22 | 26.59         | 36.00        |        |



\* Asterisk signifies initiation or assumption of coverage.

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**Outperform (O)** : The stock's total return is expected to outperform the relevant benchmark\* over the next 12 months.

**Neutral (N)** : The stock's total return is expected to be in line with the relevant benchmark\* over the next 12 months.

**Underperform (U)** : The stock's total return is expected to underperform the relevant benchmark\* over the next 12 months.

\*Relevant benchmark by region: As of 10th December 2012, Japanese ratings are based on a stock's total return relative to the analyst's coverage universe which consists of all companies covered by the analyst within the relevant sector, with Outperforms representing the most attractive, Neutrals the less attractive, and Underperforms the least attractive investment opportunities. As of 2nd October 2012, U.S. and Canadian as well as European (excluding Turkey) ratings are based on a stock's total return relative to the analyst's coverage universe which consists of all companies covered by the analyst within the relevant sector, with Outperforms representing the most attractive, Neutrals the less attractive, and Underperforms the least attractive investment opportunities. For Latin America, Turkey and Asia (excluding Japan and Australia), stock ratings are based on a stock's total return relative to the average total return of the relevant country or regional benchmark (India - S&P BSE Sensex Index); for China A share the relevant index is the Shanghai Shenzhen CSI 300 (CSI300); prior to 2nd October 2012 U.S. and Canadian ratings were based on (1) a stock's absolute total return potential to its current share price and (2) the relative attractiveness of a stock's total return potential within an analyst's coverage universe. For Australian and New Zealand stocks, the expected total return (ETR) calculation includes 12-month rolling dividend yield. An Outperform rating is assigned where an ETR is greater than or equal to 7.5%; Underperform where an ETR less than or equal to 5%. A Neutral may be assigned where the ETR is between -5% and 15%. The overlapping rating range allows analysts to assign a rating that puts ETR in the context of associated risks. Prior to 18 May 2015, ETR ranges for Outperform and Underperform ratings did not overlap with Neutral thresholds between 15% and 7.5%, which was in operation from 7 July 2011.

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|--------------------|---------------------|------------------------------|
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| Neutral/Hold*      | 35%                 | (21% banking clients)        |
| Underperform/Sell* | 10%                 | (19% banking clients)        |
| Restricted         | 1%                  |                              |

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This research report is authored by:

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## EXHIBIT D

Credit Suisse Report for NS dated November 21, 2022

# Norfolk Southern

## NS land deal shifts asset ownership, but limited impact on core ops; trim estimates on yield headwinds but still view Street as conservative

Railroads | Decrease Target Price

## NSC

Target price (12M, US\$) **278.00**  
Outperform

■ **NS to purchase CSR assets in \$1.6 billion deal:** On Monday, NS announced the execution of a purchase agreement to acquire the assets of the Cincinnati Southern Railway (CSR) for \$1.62 billion. The agreement would give NS ownership of approximately 9,500 acres on which sits 337 miles of railroad between Cincinnati and Chattanooga, TN currently maintained and operated by the Cincinnati, New Orleans and Texas Pacific Railway Company (CNOTP), a wholly owned subsidiary of NS. The line forms one of the highest-density parts of NS' network, with as many as 30 trains per day, connecting key segments of NS' line between Chicago and Atlanta. From an operating standpoint, we do not expect much to change from this transaction. NS has been leasing this land from CSR, with the current agreement set to expire in 2026. With the transfer of ownership, we expect a cut to operating rents and a step up in depreciation expense. NS expects the deal to close in 1H 2024, with a long lead time in closing as the transaction could be subject to a public vote from the citizens of Cincinnati, as well as a number of other conditions.

■ **Trim estimates but Street consensus appears conservative in our view:** Our prior 2023 and 2024 adj. EPS estimates of \$15.25 and \$17.00, respectively, represented the highs on the Street, solidly above consensus' \$14.10 and \$15.31 targets. We now lower our '23 and '24 ests. 4% and 5% to \$14.65 and \$16.10, respectively. The cuts to our estimates reflect (1) higher expected interest expense from debt related to this transaction, (2) a modest cut to our buyback target given a higher share price assumption and lower repurchase allocation, and (3) a reduction in our yield assumptions, as average revenue per carload (ARC) is likely to come under pressure if coal prices drop and as assessorial charges related to supply chain congestion moderate. Nevertheless, we see current Street targets as conservative, with consensus expecting de minimis growth in ARCs over the next two years (-0.1% in '23, +1.2% in '24) despite management expressing confidence in its ability to price above inflation (as [we wrote about last week](#)). Street also expects limited margin gains despite improving network fluidity and stabilizing fuel prices. We remain Outperform but trim our price target to \$278 from \$282 on a 19x target P/E (from 18.5x). We see opportunity for NS to reset expectations at its Investor Day in December. Key risks include macro weakness and yield pressure from truck competition on falling rates.

### Financial and valuation metrics

| Year                           | 12/21A   | 12/22E                   | 12/23E   | 12/24E    |
|--------------------------------|----------|--------------------------|----------|-----------|
| EPS (CS adj.) (US\$)           | 12.11    | 13.53                    | 14.65    | 16.10     |
| Prev. EPS (US\$)               | -        | 13.55                    | 15.25    | 17.00     |
| Revenue (US\$ m)               | 11,142.0 | 12,644.2                 | 13,098.6 | 13,642.2  |
| P/OCF (x)                      | 17.4     | 12.2                     | 11.6     | 10.6      |
| EV/EBITDA (current)            | 12.7     | 11.7                     | 11.3     | 10.7      |
| Net debt (US\$ m)              | 13,001   | 14,049                   | 14,043   | 13,788    |
| ROIC (%)                       | 12.93    | 13.89                    | 14.19    | 14.97     |
| Number of shares (m)           | 231.51   | IC (current, US\$ m)     |          | 26,642.00 |
| Net debt (Next Qtr., US\$ m)   | 14,048.5 | Dividend (current, US\$) |          | 4.96      |
| Net debt/tot eq (Next Qtr., %) | 110.4    |                          |          |           |

Source: Company data, Refinitiv, Credit Suisse estimates

|                                   |                 |
|-----------------------------------|-----------------|
| Previous target price (12M, US\$) | 282.00          |
| Price (21 Nov 22, US\$)           | 249.26          |
| 52-week price range               | 297.71 - 204.87 |
| Enterprise value (US\$ m)         | 71,756          |

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### Share price performance



On 21-Nov-2022 the S&P 500 INDEX closed at 3585.62Daily  
Nov22, 2021 - Nov21, 2022, 11/22/21 = US\$277.06

| Quarterly EPS | Q1   | Q2   | Q3   | Q4   |
|---------------|------|------|------|------|
| 2021A         | 2.66 | 3.28 | 3.06 | 3.12 |
| 2022E         | 2.93 | 3.45 | 3.75 | 3.41 |
| 2023E         | 3.38 | 3.87 | 3.80 | 3.60 |

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# Norfolk Southern (NSC)

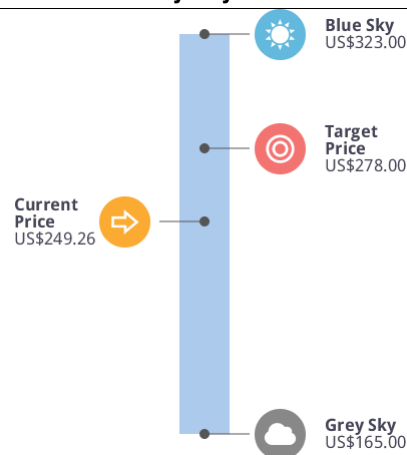
Price (21 Nov 2022): **US\$249.26**Target Price: (from 282.00) **278.00**Analyst: **Ariel Rosa**Rating: **Outperform**

| Income Statement             | 12/21A   | 12/22E   | 12/23E   | 12/24E   |
|------------------------------|----------|----------|----------|----------|
| Revenue (US\$ m)             | 11,142.0 | 12,644.2 | 13,098.6 | 13,642.2 |
| EBITDA (US\$ m)              | 5,628    | 6,115    | 6,333    | 6,706    |
| Depr. & amort.               | (1,181)  | (1,229)  | (1,309)  | (1,388)  |
| EBIT (US\$)                  | 4,447    | 4,886    | 5,023    | 5,318    |
| Net interest exp             | (646)    | (692)    | (712)    | (740)    |
| PBT (US\$)                   | 3,878    | 4,187    | 4,351    | 4,626    |
| Income taxes                 | (873)    | (1,001)  | (1,044)  | (1,110)  |
| Minorities                   | -        | -        | -        | -        |
| Reported net income (US\$)   | 3,005    | 3,187    | 3,307    | 3,516    |
| Other NPAT adjustments       | 0        | 0        | 0        | 0        |
| Adjusted net income          | 3,005    | 3,187    | 3,307    | 3,516    |
| Cash Flow                    | 12/21A   | 12/22E   | 12/23E   | 12/24E   |
| EBIT                         | 4,447    | 4,886    | 5,023    | 5,318    |
| Net interest                 | (646)    | (692)    | (712)    | (740)    |
| Change in working capital    | (29)     | 296      | 18       | 12       |
| CAPEX                        | (1,470)  | (1,792)  | (1,725)  | (1,750)  |
| Free cashflow to the firm    | 2,785    | 3,018    | 3,110    | 3,366    |
| Acquisitions                 | -        | -        | -        | -        |
| Divestments                  | -        | -        | -        | -        |
| Cash flow from investments   | (1,222)  | (1,555)  | (1,665)  | (1,690)  |
| Changes in Net Cash/Debt     | (1,435)  | (1,048)  | 5        | 256      |
| Balance Sheet (US\$)         | 12/21A   | 12/22E   | 12/23E   | 12/24E   |
| Assets                       |          |          |          |          |
| Cash & cash equivalents      | 839      | 1,019    | 1,025    | 2,280    |
| Total current assets         | 2,167    | 2,363    | 2,400    | 3,692    |
| Total assets                 | 38,493   | 39,132   | 39,525   | 41,120   |
| Liabilities                  |          |          |          |          |
| Total current liabilities    | 2,521    | 2,873    | 2,924    | 2,972    |
| Total liabilities            | 24,852   | 26,407   | 26,658   | 27,906   |
| Total liabilities and equity | 38,493   | 39,132   | 39,525   | 41,120   |
| Net debt                     | 13,001   | 14,049   | 14,043   | 13,788   |
| Per share                    | 12/21A   | 12/22E   | 12/23E   | 12/24E   |
| No. of shares (wtd avg)      | 248      | 236      | 226      | 218      |
| CS adj. EPS                  | 12.11    | 13.53    | 14.65    | 16.10    |
| Prev. EPS (US\$)             | -        | 13.55    | 15.25    | 17.00    |
| Dividend (US\$)              | 4.16     | 4.96     | 5.16     | 5.36     |
| Free cash flow per share     | 11.23    | 12.81    | 13.78    | 15.42    |
| Earnings                     | 12/21A   | 12/22E   | 12/23E   | 12/24E   |
| Sales growth (%)             | 13.8     | 13.5     | 3.6      | 4.2      |
| EBIT growth (%)              | 27.6     | 9.9      | 2.8      | 5.9      |
| Net profit growth (%)        | 26.5     | 6.0      | 3.8      | 6.3      |
| EPS growth (%)               | 30.9     | 11.7     | 8.3      | 9.9      |
| EBITDA margin (%)            | 50.5     | 48.4     | 48.3     | 49.2     |
| EBIT margin (%)              | 39.9     | 38.6     | 38.3     | 39.0     |
| Pretax margin (%)            | 34.8     | 33.1     | 33.2     | 33.9     |
| Net margin (%)               | 27.0     | 25.2     | 25.2     | 25.8     |
| Valuation                    | 12/21A   | 12/22E   | 12/23E   | 12/24E   |
| EV/Sales (x)                 | 6.35     | 5.68     | 5.48     | 5.24     |
| P/E (x)                      | 20.6     | 18.4     | 17.0     | 15.5     |
| Price to book (x)            | 4.4      | 4.5      | 4.2      | 4.0      |
| Asset turnover               | 0.3      | 0.3      | 0.3      | 0.3      |
| Returns                      | 12/21A   | 12/22E   | 12/23E   | 12/24E   |
| ROE stated-return on (%)     | 20.4     | 23.5     | 25.1     | 26.2     |
| ROIC (%)                     | 12.9     | 13.9     | 14.2     | 15.0     |
| Gearing                      | 12/21A   | 12/22E   | 12/23E   | 12/24E   |
| Net debt/equity (%)          | 95.3     | 110.4    | 109.1    | 104.3    |
| Interest coverage ratio (X)  | 6.9      | 7.1      | 7.1      | 7.2      |
| Quarterly EPS                | Q1       | Q2       | Q3       | Q4       |
| 2021A                        | 2.66     | 3.28     | 3.06     | 3.12     |
| 2022E                        | 2.93     | 3.45     | 3.75     | 3.41     |
| 2023E                        | 3.38     | 3.87     | 3.80     | 3.60     |

## Company Background

Norfolk Southern Corporation, together with its subsidiaries, engages in the rail transportation of raw materials, intermediate products, and finished goods in the Eastern United States.

## Blue/Grey Sky Scenario



## Our Blue Sky Scenario (US\$)

(from 320.00) **323.00**

To arrive at our \$323 Blue Sky scenario, we assume 5% EPS growth in the year-ahead in excess of our target, consistent with a strong EPS growth year for NSC. We then apply a target P/E multiple of 21x, which would reflect a premium to the S&P500 consistent with high-quality large cap companies, which we feel is appropriate for North American rails. NSC could see accelerated earnings growth from narrowing its margin gap to its eastern peer CSX.

## Our Grey Sky Scenario (US\$)

(from 162.00) **165.00**

To arrive at our \$165 Grey Sky scenario, we assume 10% EPS decline in the year-ahead in excess of our target, which is consistent with a challenging year for NSC. We then apply a target P/E multiple of 12.5x, which represents a discount to the S&P500 and is near the low-end of the company's historical one-standard deviation trading range.

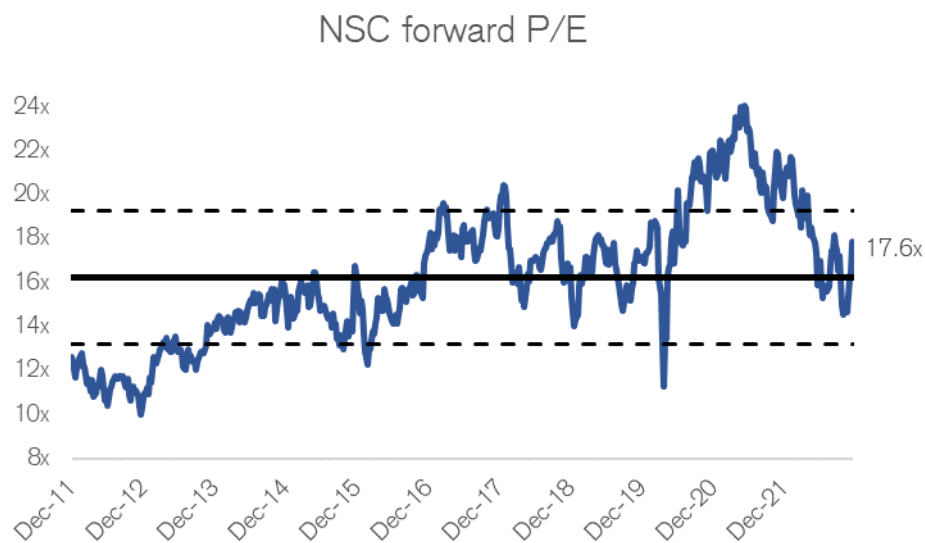
## Share price performance



On 21-Nov-2022 the S&P 500 INDEX closed at 3585.62.  
Daily Nov22, 2021 - Nov21, 2022, 11/22/21 = US\$277.06

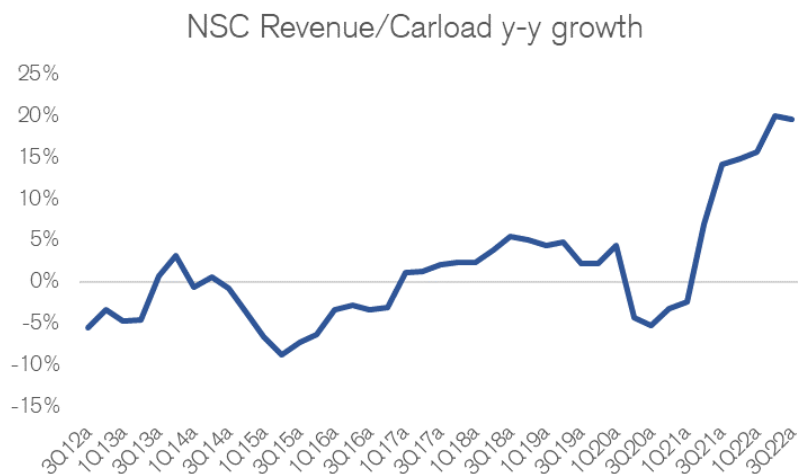
Source: FTI, Company data, Refinitiv, Credit Suisse Securities (EUROPE) LTD. Estimates

**Figure 1: NSC forward P/E has fallen from the low- to mid-20s over the past 18 months, but has rebounded off multi-year lows in recent weeks as shares have bounced from the low \$200 range to its current \$249**



Source: Company data, Credit Suisse estimates, the BLOOMBERG PROFESSIONAL™ service

**Figure 2: NS has seen a significant step-up in Avg. Rev/Carload driven by fuel surcharges and pricing gains; on its 3Q call CEO Alan Shaw and CMO Ed Elkins discussed its ability to price above inflation, but Street appears skeptical, forecasting ARCs to decline -0.1% in '23 and only modest +1.2% growth in '24**



Source: Company data, Credit Suisse estimates

## Valuation Methodology and Risks

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### Target Price and Rating

#### Valuation Methodology and Risks: (12 months) for Norfolk Southern (NSC.N)

**Method:** Our \$278 target price is based on a 19x target multiple on our 2023 EPS estimate, near the upper-end of its long-term forward P/E range of 13x to 19.5x forward earnings. We believe our Outperform rating and target multiple are supported by NSC's margin improvement potential and volume growth opportunities, particularly given the strength of its intermodal franchise.

**Risk:** The biggest risk we see to our \$278 price target and Outperform rating for NS is a regression to challenges in its service performance, as this could hinder both its ability to cut costs and its ability to grow volumes, while also subjecting the company to greater scrutiny from the STB. We look for evidence of improvement in its network fluidity, with the company noting that its hiring pipeline is now at its highest level in 4 years, despite the tight labor market. NS also has higher consumer exposure than its eastern peer CSX given its larger intermodal franchise, potentially leaving the company vulnerable to near-term recession risk from a pull-back in spending. NS has also developed partnerships with Kansas City Southern for intermodal traffic in the Southeast, and we see this as potentially at risk from the pending CP-KCS merger.

**Companies Mentioned** (Price as of 21-Nov-2022)  
**Norfolk Southern** (NSC.N, \$249.26, OUTPERFORM, TP \$278.0)

## Disclosure Appendix

### Analyst Certification

I, Ariel Rosa, certify that (1) the views expressed in this report accurately reflect my personal views about all of the subject companies and securities and (2) no part of my compensation was, is or will be directly or indirectly related to the specific recommendations or views expressed in this report.

### 3-Year Price and Rating History for Norfolk Southern (NSC.N)

| NSC.N     | Closing Price | Target Price |        |
|-----------|---------------|--------------|--------|
| Date      | (US\$)        | (US\$)       | Rating |
| 26-Nov-19 | 196.21        | 210.00       | O      |
| 16-Jan-20 | 206.25        | 226.00       |        |
| 29-Jan-20 | 214.83        | 241.00       |        |
| 07-Apr-20 | 153.53        | 182.00       |        |
| 29-Apr-20 | 180.33        | 203.00       |        |
| 07-Jul-20 | 174.12        | 199.00       |        |
| 29-Jul-20 | 192.82        | 216.00       |        |
| 02-Oct-20 | 212.66        | 241.00       |        |
| 07-Oct-20 | 216.86        | 246.00       |        |
| 28-Oct-20 | 198.11        | 242.00       |        |
| 25-Nov-20 | 241.46        | 268.00       |        |
| 11-Jan-21 | 254.37        | 283.00       |        |
| 27-Jan-21 | 235.64        | 271.00       |        |
| 08-Mar-21 | 259.22        | 278.00       |        |
| 09-Apr-21 | 272.49        | 303.00       |        |
| 28-Apr-21 | 284.09        | 320.00       |        |
| 30-Jun-21 | 265.41        | 325.00       |        |
| 28-Jul-21 | 256.92        | 322.00       |        |
| 02-Aug-21 | 256.16        |              | NC     |
| 27-Jun-22 | 227.73        | 267.00       | O *    |
| 27-Jul-22 | 243.24        | 277.00       |        |
| 12-Aug-22 | 261.84        | 292.00       |        |
| 10-Oct-22 | 212.24        | 264.00       |        |
| 26-Oct-22 | 222.12        | 267.00       |        |
| 17-Nov-22 | 245.56        | 282.00       |        |

\* Asterisk signifies initiation or assumption of coverage.

Effective July 3, 2016, NC denotes termination of coverage.



### As of December 10, 2012 Analysts' stock rating are defined as follows:

**Outperform (O)** : The stock's total return is expected to outperform the relevant benchmark\* over the next 12 months.

**Neutral (N)** : The stock's total return is expected to be in line with the relevant benchmark\* over the next 12 months.

**Underperform (U)** : The stock's total return is expected to underperform the relevant benchmark\* over the next 12 months.

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This research report is authored by:

**Credit Suisse Securities (USA) LLC** ..... Ariel Rosa ; Ben Mohr

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## EXHIBIT E

Credit Suisse Report for UP dated October 20, 2022

# Union Pacific

## Cut to volume & margin outlook overshadows solid 3Q beat; cost pressures pushing out 55% operating ratio target

Railroads | Decrease Target Price

## UNP

Target price (12M, US\$) **232.00**  
**Outperform**

- **UNP shares hit hard on cut to volume and margin outlook:** UNP experienced its biggest drop in 2 years (down -6.8% vs. -0.8% for the S&P500) as the company cut its outlook for full-year carload growth to 3% (from +4%-5%) and its full-year operating ratio to 60% (from 58%). The cut to volumes reflects a weakening macro environment, ongoing service challenges (which are gradually improving but still lackluster), and the drop in truck rates driving competition against rail. At the same time, the cut to its operating ratio outlook is being driven by inflationary cost pressures, and particularly the recent increase in wages from the pending agreement with its unions which guarantees a 7.0% wage increase this year and a 4.0% increase in 2023 in addition to annual \$1,000 bonus payments. UP said it still feels confident in its ability to reach a 55% operating ratio over time, but the timeline to achieve this has been pushed out. For our part, we think the share price move was overdone given a solid 3Q earnings beat and UP's demonstrated history of being able to capture pricing to offset inflationary cost pressures. However, skepticism is warranted as the company has walked back its margin target every quarter this year, and as competitor CSX noted, a lot of volume is required to offset a point of margin. We continue to look for improvements to network fluidity to help offset inflationary cost pressure, but it will take time for UP to get pricing sufficient to drive operating ratios back to the mid-50s. We bump our OR targets to 58.2% for 2023e (from 56.3%) and 57.3% for 2024e (from 55.9%).
- **Strong pricing drives 3Q EPS beat:** UNP posted 3Q22 adj. EPS of \$3.19, up +23.9% y-y, above our \$3.00 and consensus' \$3.05 targets. Adjusted results exclude a \$114 mil. charge due to the labor agreement accruals (which account for all expected ratifications), resulting in GAAP EPS of \$3.05. The EPS beat was driven by strong pricing gains, with revenue per carload up +14.5% y-y (above our +9.8% estimate). Given the strong pricing, we see room for UP to offset cost pressures aided by continued solid demand trends.
- **We remain Outperform, lower PT to \$232** from \$244, holding our 18.5x target P/E on our 2023e EPS but lowering our EPS targets. We cut '22, '23, '24 adj. EPS estimates to \$11.50, \$12.55, and \$14.10 from \$11.65, \$13.20, \$14.50, respectively. Key risks include macro weakness and UP's ability to secure incrementally accretive volume to improve OR. We continue to believe long-term holders should buy on weakness given the cash flow generation potential of the business and its depressed multiple versus history.

|                                   |                 |
|-----------------------------------|-----------------|
| Previous target price (12M, US\$) | 244.00          |
| Price (20 Oct 22, US\$)           | 186.45          |
| 52-week price range               | 276.69 - 186.45 |
| Enterprise value (US\$ m)         | 149,412         |

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### Financial and valuation metrics

| Year                           | 12/21A   | 12/22E                   | 12/23E   | 12/24E    |
|--------------------------------|----------|--------------------------|----------|-----------|
| EPS (CS adj.) (US\$)           | 9.95     | 11.50                    | 12.55    | 14.10     |
| Prev. EPS (US\$)               | -        | 11.65                    | 13.20    | 14.50     |
| Revenue (US\$ m)               | 21,804.0 | 24,996.5                 | 26,171.5 | 27,380.4  |
| P/OCF (x)                      | 18.3     | 12.4                     | 11.3     | 10.1      |
| EV/EBITDA (current)            | 13.0     | 12.1                     | 11.3     | 10.6      |
| Net debt (US\$ m)              | 30,198   | 32,978                   | 35,566   | 37,627    |
| ROIC (%)                       | 16.20    | 17.61                    | 18.39    | 19.22     |
| Number of shares (m)           | 624.48   | IC (current, US\$ m)     |          | 44,359.00 |
| Net debt (Next Qtr., US\$ m)   | 32,978.1 | Dividend (current, US\$) |          | 5.20      |
| Net debt/tot eq (Next Qtr., %) | 282.4    |                          |          |           |

Source: Company data, Refinitiv, Credit Suisse estimates

### Share price performance



On 20-Oct-2022 the S&P 500 INDEX closed at 3585.62Daily  
Oct21, 2021 - Oct20, 2022, 10/21/21 = US\$231.28

| Quarterly EPS | Q1   | Q2   | Q3   | Q4   |
|---------------|------|------|------|------|
| 2021A         | 2.00 | 2.72 | 2.57 | 2.66 |
| 2022E         | 2.57 | 2.93 | 3.19 | 2.82 |
| 2023E         | 2.83 | 3.18 | 3.31 | 3.23 |

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# Union Pacific (UNP)

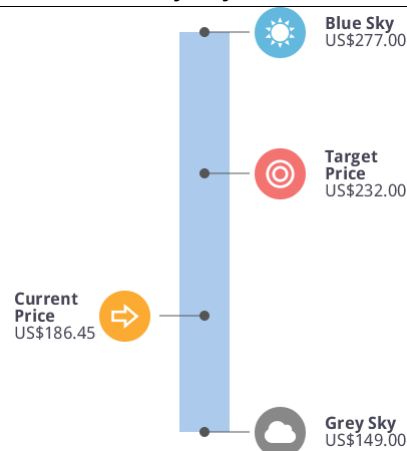
Price (20 Oct 2022): **US\$186.45**Target Price: (from 244.00) **232.00**Analyst: **Ariel Rosa**Rating: **Outperform**

| Income Statement             | 12/21A   | 12/22E   | 12/23E   | 12/24E   |
|------------------------------|----------|----------|----------|----------|
| Revenue (US\$ m)             | 21,804.0 | 24,996.5 | 26,171.5 | 27,380.4 |
| EBITDA (US\$ m)              | 11,546   | 12,410   | 13,270   | 14,123   |
| Depr. & amort.               | (2,208)  | (2,244)  | (2,322)  | (2,443)  |
| EBIT (US\$)                  | 9,338    | 10,166   | 10,948   | 11,680   |
| Net interest exp             | (1,157)  | (1,253)  | (1,300)  | (1,320)  |
| PBT (US\$)                   | 8,478    | 9,287    | 9,808    | 10,520   |
| Income taxes                 | (1,955)  | (2,103)  | (2,305)  | (2,472)  |
| Minorities                   | -        | -        | -        | -        |
| Reported net income (US\$)   | 6,523    | 7,184    | 7,503    | 8,047    |
| Other NPAT adjustments       | 0        | 0        | 0        | 0        |
| Adjusted net income          | 6,523    | 7,184    | 7,503    | 8,047    |
| Cash Flow                    | 12/21A   | 12/22E   | 12/23E   | 12/24E   |
| EBIT                         | 9,338    | 10,166   | 10,948   | 11,680   |
| Net interest                 | (1,157)  | (1,253)  | (1,300)  | (1,320)  |
| Change in working capital    | 203      | 43       | 6        | 16       |
| CAPEX                        | (2,936)  | (3,410)  | (3,400)  | (3,600)  |
| Free cashflow to the firm    | 6,096    | 6,016    | 6,431    | 6,907    |
| Acquisitions                 | -        | -        | -        | -        |
| Divestments                  | 178      | 200      | 180      | 200      |
| Cash flow from investments   | (2,709)  | (3,225)  | (3,220)  | (3,400)  |
| Changes in Net Cash/Debt     | (3,985)  | (2,780)  | (2,588)  | (2,061)  |
| Balance Sheet (US\$)         | 12/21A   | 12/22E   | 12/23E   | 12/24E   |
| Assets                       |          |          |          |          |
| Cash & cash equivalents      | 960      | 2,247    | 659      | 598      |
| Total current assets         | 3,551    | 5,188    | 3,692    | 3,711    |
| Total assets                 | 63,525   | 66,806   | 68,530   | 71,949   |
| Liabilities                  |          |          |          |          |
| Total current liabilities    | 5,744    | 5,646    | 5,743    | 5,839    |
| Total liabilities            | 49,364   | 55,127   | 58,546   | 63,085   |
| Total liabilities and equity | 63,525   | 66,806   | 68,530   | 71,949   |
| Net debt                     | 30,198   | 32,978   | 35,566   | 37,627   |
| Per share                    | 12/21A   | 12/22E   | 12/23E   | 12/24E   |
| No. of shares (wtd avg)      | 655      | 625      | 598      | 571      |
| CS adj. EPS                  | 9.95     | 11.50    | 12.55    | 14.10    |
| Prev. EPS (US\$)             | -        | 11.65    | 13.20    | 14.50    |
| Dividend (US\$)              | 4.29     | 5.08     | 5.35     | 5.55     |
| Free cash flow per share     | 9.30     | 9.63     | 10.75    | 12.10    |
| Earnings                     | 12/21A   | 12/22E   | 12/23E   | 12/24E   |
| Sales growth (%)             | 11.6     | 14.6     | 4.7      | 4.6      |
| EBIT growth (%)              | 15.1     | 8.9      | 7.7      | 6.7      |
| Net profit growth (%)        | 17.4     | 10.1     | 4.4      | 7.3      |
| EPS growth (%)               | 21.6     | 15.6     | 9.1      | 12.4     |
| EBITDA margin (%)            | 53.0     | 49.6     | 50.7     | 51.6     |
| EBIT margin (%)              | 42.8     | 40.7     | 41.8     | 42.7     |
| Pretax margin (%)            | 38.9     | 37.2     | 37.5     | 38.4     |
| Net margin (%)               | 29.9     | 28.7     | 28.7     | 29.4     |
| Valuation                    | 12/21A   | 12/22E   | 12/23E   | 12/24E   |
| EV/Sales (x)                 | 6.73     | 5.98     | 5.81     | 5.63     |
| P/E (x)                      | 18.7     | 16.2     | 14.9     | 13.2     |
| Price to book (x)            | 1.9      | 1.8      | 1.6      | 1.4      |
| Asset turnover               | 0.3      | 0.4      | 0.4      | 0.4      |
| Returns                      | 12/21A   | 12/22E   | 12/23E   | 12/24E   |
| ROE stated-return on (%)     | 10.7     | 11.3     | 11.2     | 11.3     |
| ROIC (%)                     | 16.2     | 17.6     | 18.4     | 19.2     |
| Gearing                      | 12/21A   | 12/22E   | 12/23E   | 12/24E   |
| Net debt/equity (%)          | 213.2    | 282.4    | 356.2    | 424.5    |
| Interest coverage ratio (X)  | 8.1      | 8.1      | 8.4      | 8.8      |
| Quarterly EPS                | Q1       | Q2       | Q3       | Q4       |
| 2021A                        | 2.00     | 2.72     | 2.57     | 2.66     |
| 2022E                        | 2.57     | 2.93     | 3.19     | 2.82     |
| 2023E                        | 2.83     | 3.18     | 3.31     | 3.23     |

## Company Background

Union Pacific Corporation is engaged in the transportation business. The Company's principal operating company, Union Pacific Railroad Company, links 23 states in the western two-thirds of the United States of America.

## Blue/Grey Sky Scenario



## Our Blue Sky Scenario (US\$)

(from 291.00) **277.00**

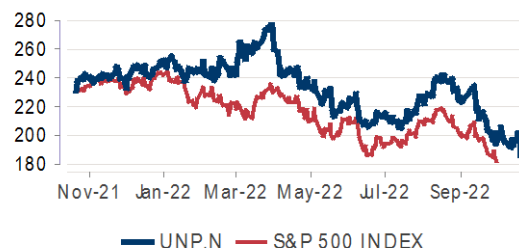
To arrive at our Blue Sky scenario, we assume 5% EPS growth above our current target in the year-ahead, which is near the average of its historical annual EPS growth. We then apply a target P/E of 21x, which would reflect a premium to the S&P500 consistent with high-quality large cap companies, which we feel is appropriate for North American rails. We believe UNP has the ability to drive earnings growth as it improves service on its network.

## Our Grey Sky Scenario (US\$)

(from 157.00) **149.00**

To arrive at our Grey Sky scenario, we assume an EPS decline of -15% below our current target in the year-ahead, which is consistent with a challenging year for UNP. We then apply a target P/E multiple of 14x, which represents a discount to the S&P500 and is near the low-end of the company's historical one-standard deviation trading range.

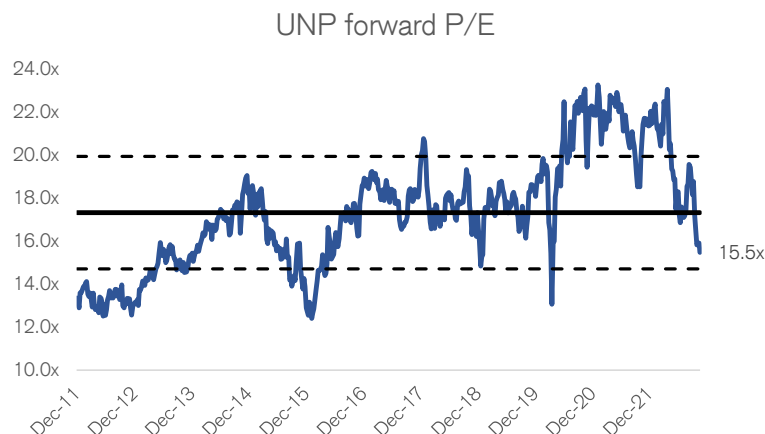
## Share price performance



On 20-Oct-2022 the S&P 500 INDEX closed at 3585.62  
Daily Oct'21, 2021 - Oct'20, 2022, 10/21/21 = US\$231.28

Source: FTI, Company data, Refinitiv, Credit Suisse Securities (EUROPE) LTD. Estimates

**Figure 1: UP's forward P/E now trades near the lower bound of its historical one-standard deviation range of 14.5x-20x forward earnings, even as we view current estimates as reflecting limited ability to return margins to the mid-50s**



Source: the BLOOMBERG PROFESSIONAL™ service

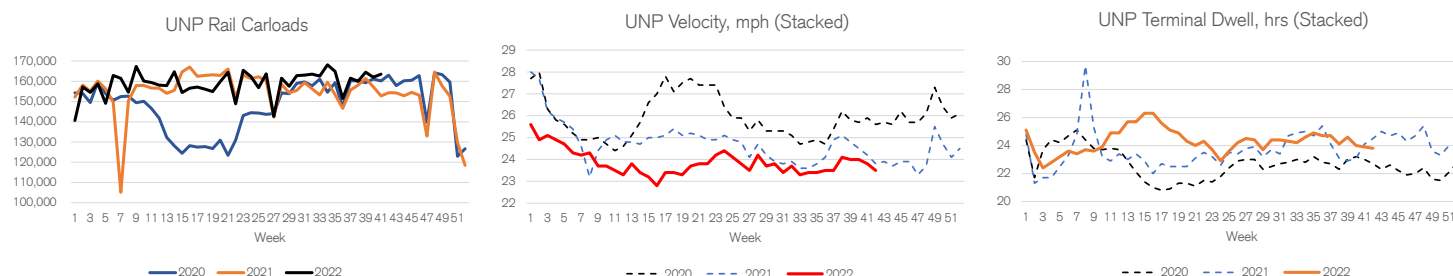
## Summary of 3Q Results

**UP consolidated revenues** were \$6.57 billion, up +18% y-y, and \$293 million above our estimate. All three of its Freight segments beat our revenue targets, posting double-digit y-y top line gains led by Premium (up +25% y-y, 450bps above our estimate), Bulk (up +16% y-y; 400bps above our estimate), and Industrial (up +15% y-y; 570bps above our estimate). Overall volume increased modestly +3.2% y-y (in-line with our estimate) while revenue/carload increased +14.5% y-y, solidly above our +9.8% estimate.

UP said it believes it left demand on the table, notably in its unit train business that required more crews and resources. It noted that it will continue to work on service network improvements and bring on board more workers. Management expects +3% y-y carload growth for 2022 (down from prior +4%-5% growth expectation) and reaffirmed its expectation that it should be able to price above inflation.

Service remained a challenge in the quarter, aggravated by concerns with a nationwide labor strike. Freight car velocity showed modest improvement, up +2.1% on a sequential basis but down -2.1% y-y, to 191 miles per day. Terminal dwell improved 0.8% sequentially but fell 1.7% y-y. Both metrics picked up during the quarter from near multi-year lows in 1H22.

**Figure 2: Volume (as measured by carloads), was up +3.5% y-y in 3Q and up +5% during the first two weeks of 4Q; velocity and dwell have been improving slightly from multi-year lows earlier this year**



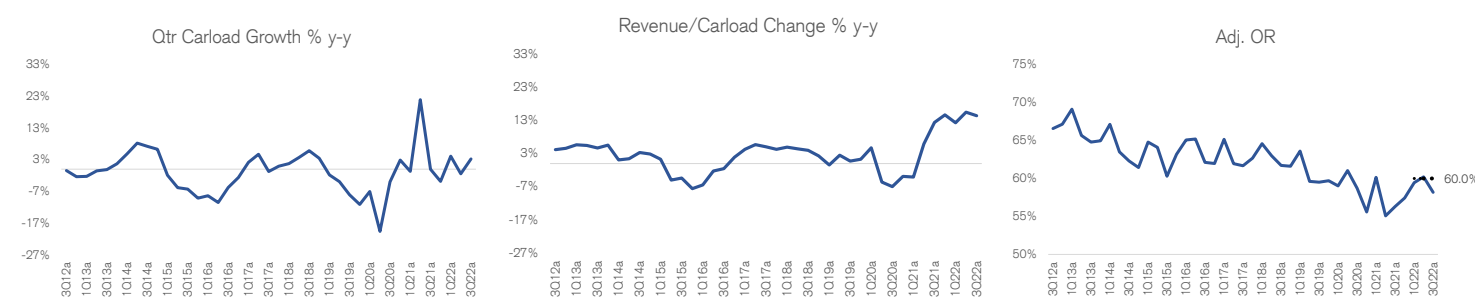
Source: Company data, Credit Suisse estimates

**Premium revenues** (33% of 2021 total revenues) were \$1.96 billion, up +25% y-y on a +3.5% y-y volume increase, beating our estimates by \$70 million. Premium yield grew +21% y-y driven by core pricing gains and fuel surcharge. Automotive volumes were up +19% y-y driven by strong production and inventory replenishment needs. The Intermodal segment experienced an +18% y-y increase in revenue. While volumes remained flat, domestic intermodal fell -3% y-y led by a -16% y-y decline in parcel shipments.

**Industrial revenues** (36% of 2021 total revenues) were \$2.19 billion, up +15% y-y (\$109 million above our estimate), driven by a +4% y-y increase in volume and +11% y-y increase in revenue per carload. Three of its four segments exceeded our estimates, with the exception of Energy & Specialized Markets. The underperformance in the Energy and Specialty segment was attributable to a -3% y-y decrease in volume driven by lower petroleum shipments resulting from regulatory changes in the Mexican market.

**Bulk revenues** (31% of 2021 total revenues) were \$1.96 billion, up +16% y-y, beating our estimate by \$68 million. Bulk carloads grew +2% y-y led by Coal and Renewables (+4.7% y-y; in-line with our estimate) benefitting from 2 contract wins and favorable natural gas prices. Favorable yield resulted in double-digit y-y increases across Grain (+18% y-y), Fertilizer (+12% y-y), and Food & Refrigerated (+15% y-y) while Coal yields were up +9% y-y.

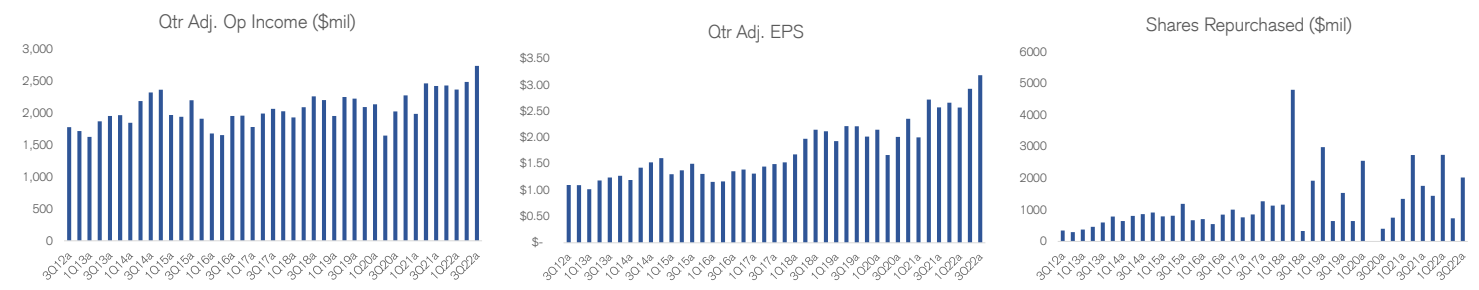
**Figure 3: Fuel surcharge bolstered the double-digit y-y revenue increases across UP's reported segments. Volume growth showed signs of improvement (+3.2% y-y) from the company's network recovery efforts. While the 2022 OR target has been revised upward to 60%, UP said it remains confident in achieving a 55% OR over the long-term**



Source: Company data, Credit Suisse estimates

**UP recognized a \$114 million adjustment related to labor accrual adjustments that had a net \$0.14/sh impact on EPS.** This includes \$92 million related to 2020 and 2021 accruals. GAAP operating income was \$2.6 billion, implying a 59.5% OR. Accounting for labor accrual adjustments, **adjusted operating income** was \$2.75 billion, up +13% y-y and \$47 million above our estimate. Adjusted OR was 58.2% (vs our estimate of 57%), a 190bps y-y deterioration and 200bps sequential improvement, reflecting cost containment pressures from the inflationary environment and challenges with creating incremental operational efficiencies.

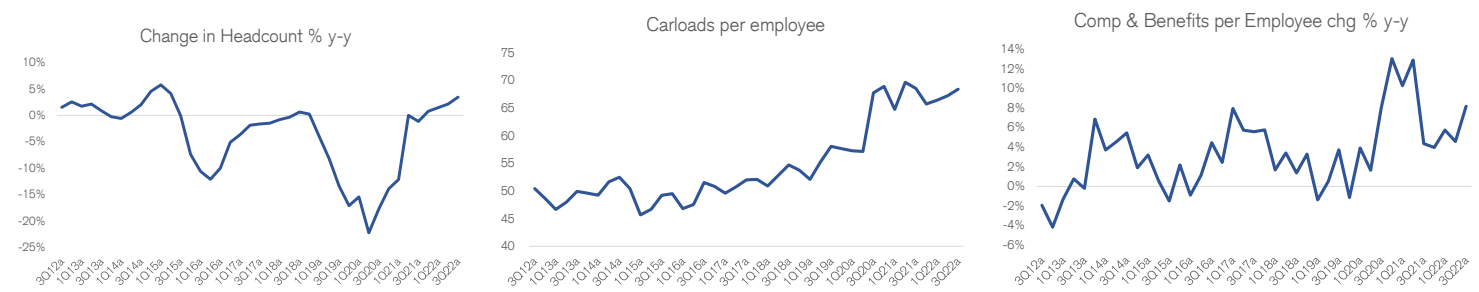
Management revised its full year OR guidance from 58% to 60% (which includes the \$114 million retroactive accrual) while remaining committed to its 55% OR target it set out in its 2021 Investor Day, acknowledging "the road to getting there is longer."

**Figure 4: Operating income and EPS continue to grow steadily, assisted in-part by consistent share buybacks**

Source: Company data, Credit Suisse estimates

**Shareholder Return & Financial Profile**

UP management announced in May 2022 a +10% increase in dividend payout (\$1.30/sh) and expects share repurchases for the full year to be \$6.5 billion. UP's quarterly adjusted debt to EBITDA ratio was 2.8x, and it also noted an upgrade by Moody's to A3. Wage inflation is expected to be 7% y-y in the first half of '23 and 4% y-y in the back half.

**Figure 5: Growth in employee headcount has sharply rebounded since COVID; there was a sizeable increase in 3Q comp & benefits per employee per the PEB agreement, as wage inflation continues to pressure margins**

Source: Company data, Credit Suisse estimates

## Valuation Methodology and Risks

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### Target Price and Rating

#### Valuation Methodology and Risks: (12 months) for Union Pacific (UNP.N)

**Method:** Our \$232 target price is based on a 18.5x target multiple on our 2023 EPS estimate, above the average of its long-term forward P/E range of 14.5x to 20x forward earnings. We believe a target multiple above the average of UNP's historical P/E range is justified by its strong cash flow generation and its proven ability to deliver compound earnings growth, which should be boosted by volume growth as service recovers.

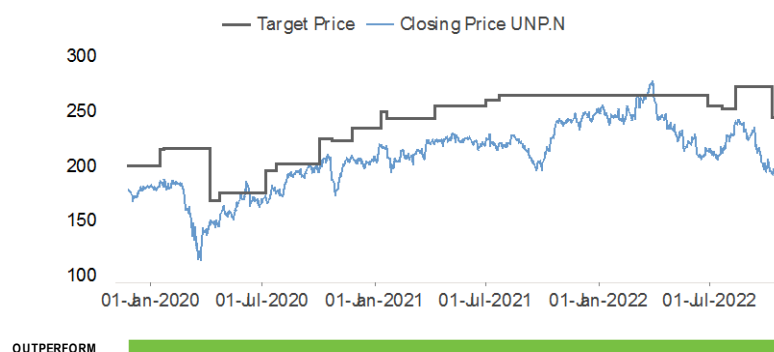
**Risk:** Risks to our Outperform rating and \$232 TP are as follows: Our biggest concern for UNP relates to cycle risk, as we do not believe that current estimates reflect a sharp recession. In the 2015-2016 freight recession, forward EPS estimates fell by 30% over the course of 8 months, resulting in a peak-to-trough decline in UNP shares of more than 40%. While we see less froth in UNP earnings at present than in the 2014-2015 period, it is clear that UNP is not immune to macro risk given its diversified end market exposure. Our second major concern relates to its recent service issues, which has raised the ire of the rails' regulator, the Surface Transportation Board (STB). We expect network congestion to ease in 2H22, but note that if it does not, an increased regulatory presence in the rails could negatively impact current industry dynamics. On a longer-term basis, we see disruption risk from technologies like autonomous trucks, which have been actively testing in regions where UNP has a large presence, such as key corridors from California to Texas. We do expect the transportation landscape to change over time, we believe the efficiency, scale and fuel benefits of rail over truck are sufficiently defensible to limit the risk of autonomous trucks.

**Companies Mentioned** (Price as of 19-Oct-2022)**Union Pacific** (UNP.N, \$200.06, OUTPERFORM, TP \$232.0)**Disclosure Appendix****Analyst Certification**

I, Ariel Rosa, certify that (1) the views expressed in this report accurately reflect my personal views about all of the subject companies and securities and (2) no part of my compensation was, is or will be directly or indirectly related to the specific recommendations or views expressed in this report.

**3-Year Price and Rating History for Union Pacific (UNP.N)**

| UNP.N     | Closing Price | Target Price |        |
|-----------|---------------|--------------|--------|
| Date      | (US\$)        | (US\$)       | Rating |
| 26-Nov-19 | 178.09        | 200.00       | O      |
| 16-Jan-20 | 183.90        | 215.00       |        |
| 23-Jan-20 | 187.19        | 216.00       |        |
| 07-Apr-20 | 145.76        | 168.00       |        |
| 23-Apr-20 | 152.29        | 175.00       |        |
| 07-Jul-20 | 169.78        | 195.00       |        |
| 24-Jul-20 | 176.12        | 202.00       |        |
| 02-Oct-20 | 196.35        | 225.00       |        |
| 23-Oct-20 | 188.14        | 223.00       |        |
| 25-Nov-20 | 207.24        | 234.00       |        |
| 11-Jan-21 | 217.35        | 249.00       |        |
| 21-Jan-21 | 207.90        | 243.00       |        |
| 09-Apr-21 | 223.24        | 255.00       |        |
| 30-Jun-21 | 219.93        | 260.00       |        |
| 22-Jul-21 | 219.54        | 264.00       |        |
| 02-Aug-21 | 217.52        | 264.00       | *      |
| 05-Jan-22 | 252.79        |              | *      |
| 12-Jan-22 | 247.00        | 264.00       | O *    |
| 27-Jun-22 | 213.85        |              | *      |
| 28-Jun-22 | 213.36        | 255.00       | O      |
| 21-Jul-22 | 211.90        | 252.00       |        |
| 12-Aug-22 | 239.95        | 272.00       |        |
| 10-Oct-22 | 194.05        | 244.00       |        |



\* Asterisk signifies initiation or assumption of coverage.

**As of December 10, 2012 Analysts' stock rating are defined as follows:**

**Outperform (O) :** The stock's total return is expected to outperform the relevant benchmark\* over the next 12 months.

**Neutral (N) :** The stock's total return is expected to be in line with the relevant benchmark\* over the next 12 months.

**Underperform (U) :** The stock's total return is expected to underperform the relevant benchmark\* over the next 12 months.

\*Relevant benchmark by region: As of 10th December 2012, Japanese ratings are based on a stock's total return relative to the analyst's coverage universe which consists of all companies covered by the analyst within the relevant sector, with Outperforms representing the most attractive, Neutrals the less attractive, and Underperforms the least attractive investment opportunities. As of 2nd October 2012, U.S. and Canadian as well as European (excluding Turkey) ratings are based on a stock's total return relative to the analyst's coverage universe which consists of all companies covered by the analyst within the relevant sector, with Outperforms representing the most attractive, Neutrals the less attractive, and Underperforms the least attractive investment opportunities. For Latin America, Turkey and Asia (excluding Japan and Australia), stock ratings are based on a stock's total return relative to the average total return of the relevant country or regional benchmark (India - S&P BSE Sensex Index); for China A share the relevant index is the Shanghai Shenzhen CSI 300 (CSI300); prior to 2nd October 2012 U.S. and Canadian ratings were based on (1) a stock's absolute total return potential to its current share price and (2) the relative attractiveness of a stock's total return potential within an analyst's coverage universe. For Australian and New Zealand stocks, the expected total return (ETR) calculation includes 12-month rolling dividend yield. An Outperform rating is assigned where an ETR is greater than or equal to 7.5%; Underperform where an ETR less than or equal to 5%. A Neutral may be assigned where the ETR is between -5% and 15%. The overlapping rating range allows analysts to assign a rating that puts ETR in the context of associated risks. Prior to 18 May 2015, ETR ranges for Outperform and Underperform ratings did not overlap with Neutral thresholds between 15% and 7.5%, which was in operation from 7 July 2011.

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**Market Weight** : The analyst's expectation for the sector's fundamentals and/or valuation is neutral over the next 12 months.

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*\*An analyst's coverage sector consists of all companies covered by the analyst within the relevant sector. An analyst may cover multiple sectors.*

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| Rating             | Versus universe (%) | Of which banking clients (%) |
|--------------------|---------------------|------------------------------|
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| Neutral/Hold*      | 35%                 | (21% banking clients)        |
| Underperform/Sell* | 10%                 | (19% banking clients)        |
| Restricted         | 1%                  |                              |

Please click [here](#) to view the MAR quarterly recommendations and investment services report for fundamental research recommendations.

*\*For purposes of the NYSE and FINRA ratings distribution disclosure requirements, our stock ratings of Outperform, Neutral, and Underperform most closely correspond to Buy, Hold, and Sell, respectively; however, the meanings are not the same, as our stock ratings are determined on a relative basis. (Please refer to definitions above.) An investor's decision to buy or sell a security should be based on investment objectives, current holdings, and other individual factors.*

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This research report is authored by:

**Credit Suisse Securities (USA) LLC** .....Ariel Rosa ; Ben Mohr

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