

For Better Or Worse?

Tie Suppliers Look For Answers In Uncertain Times

Marriage vows often contain the words “...for better or worse.” In the case of the wood tie industry and railroads, long coupled together, it sometimes occurs within any given snapshot-of-time that “worse things” can occur before “better” times arrive. Will this be the case for 2015 and 2016?

As of the date of this article’s writing, the lows of the U.S. stock market have been retested, as many technical analysts suggested would happen. Will the market sustain a rally from these lows or breakdown into a bear market?

There is political uncertainty in D.C. with Speaker of the House Boehner’s resignation as threats of yet another potential government shutdown echo in the halls of congress, and the question, “will whoever is chosen as his successor be a better leader?”

On the worldwide front, the Chinese devalued the Yuan. A recent *Hardwood*

Review Express article illustrated just how many uncertainties there are for hardwood suppliers with this move. Then, there are suggestions surfacing that the Eurozone’s largest economy’s biggest banking institution, Deutsche Bank, may be in “Lehman Brothers” kind of trouble. Add in the threats posed by Russian interventionism and ongoing fears of Iranian and/or ISIS aggression becoming a worldwide problem, and it’s enough to give one a migraine.

Could any one of these factors, or all of them collectively, send the world’s economies into recession? The U.S. Federal Reserve appears to not want to be a catalyst, or be blamed, for that, by raising interest rates. This has had the effect of U.S. stock and bond markets continuing in a state-of-flux. An uncertain future also continues for the strength of the U.S. Dollar and commodity pricing. And speaking of commodities, trading giant

Glencore may be exposed to as much as \$100 billion of mostly unsecured debt with uncertain implications for banking around the world.

Maybe a look back at 2014 will find timely optimism as this article explores exclusive RTA surveys for estimated demand by railroads for the balance of 2015 and beyond. Railroad investment capital has remained steadfast in the face of many challenges over the past 10 years, so is there room for more continued growth in tie demand?

2014 U.S. Class 1 Installations

U.S. Class 1 installations for 2014 were disappointing compared to 2013 (Tables 1 and 2). Fundamental demand for purchasing ties remained high, but installs suffered. Why? Its no secret that tie supply fell short of desired levels for the last half of 2013 and throughout 2014, so this is one of the probable reasons why installa-

Table 1 - Crossties Laid in Replacement Statistics for Class I Railroads in the United States in 2014

| District and Railroad | Treated wooden crossties laid in replacement (number) | | New crossties laid in replacement other than wooden (number) (3) | Track maintained by reporting railroad | | Crossties per mile (6) | New crosstie replacement average | | Switch and bridge ties laid in replacement (board ft.) (9) |
|-------------------------------|---|----------------------|--|--|---------------------|------------------------|----------------------------------|--------------------------|---|
| | New ties (1) | Second-hand ties (2) | | Miles occupied by crossties (4) | Total crossties (5) | | Percent renewal to all ties (7) | Number laid per mile (8) | |
| Eastern District | | | | | | | | | |
| CSX | 3,009,463 | 13,267 | 3,455 (c) | 29,987 | 89,601,156 | 2,988 | 3.36% | 100 | 8,080,528 |
| Grand Trunk Corp. (CN) | 604,438 | 0 | 16,525 (c) | 9,307 | 29,363,585 | 3,155 | 2.11% | 67 | 1,064,137 |
| Norfolk Southern | 2,543,260 | 170,220 | 3,580 (d1) | 28,752 | 88,441,152 | 3,076 | 2.88% | 89 | 7,999,859 |
| Total Eastern District | 6,157,161 | 183,487 | 23,560 | 68,046 | 207,405,893 | 3,048 | 2.98% | 91 | 17,144,524 |
| Western District | | | | | | | | | |
| BNSF Railway | 3,160,111 | 0 | 118,489 (d2) | 40,584 | 125,607,480 | 3,095 | 2.61% | 81 | 6,877,780 |
| Kansas City Southern | 631,680 | 0 | 0 | 4,029 | 12,888,771 | 3,199 | 4.90% | 157 | 154,637 |
| Soo Line Corp. (CP) | 343,399 | 0 | 0 | 4,838 | 14,605,922 | 3,019 | 2.35% | 71 | 838,728 |
| Union Pacific | 3,352,126 | 36,620 | 415,498 (d3) | 43,249 | 128,882,020 | 2,980 | 2.92% | 87 | 6,839,583 |
| Total Western District | 7,487,316 | 36,620 | 533,987 | 92,700 | 281,984,193 | 3,042 | 2.84% | 87 | 14,710,728 |
| Total United States | 3,644,477 | 220,107 | 557,547 | 160,746 | 489,390,086 | 3,044 | 2.90% | 88 | 31,855,252 |

Source: R-1 Annual Reports to the Surface Transportation Board

General Notes

1,000 Second-Hand Other-Than-Wooden ties, which are not shown in the table above, were laid in replacement in 2014.

Footnotes: (a) Total mileage operated at the end of year, excluding mileage under trackage rights. (b) Based on crossties per mile of track in 1967, the last year reported. (c) Concrete ties (d1) No concrete ties and 3,580 non-wooden non-concrete ties (d2) 117,614 concrete ties and 875 non-wooden non-concrete ties (d3) 389,453 concrete ties and 26,045 non-wooden non-concrete ties (e) Includes 6,749,739 bd ft of wooden ties plus 126 concrete or steel switch ties assigned 65 board feet per tie.



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tions did not meet expectations. But over 1,000,000 ties less than 2013? Is it all because of supply issues?

At least one road reported less maintenance activity for more than one reason. In the Northern most regions of that road's territory, the weather negatively impacted scheduled construction programs, which in turn reduced planned resource utilization. The same road also indicated that less than optimal track time availability for maintenance was a constraint in some situations. That suggests more trains running on more compressed schedules, which is a bullish thing. New track construction also suggests bullish operational and CapEx decisions are being made.

Does this in and of itself bode well for wood tie demand in 2015 and beyond? On the one hand, the case could be made that it certainly does, as the surveys suggest. On the other hand, a careful look at the 2014 R-1 data in Tables 1 and 2 suggest more alternative (non-wood) tie installations in 2014 than in previous years.

In 2013, Class 1s installed a total of only 773.5 million alternative ties. In 2014 that ballooned to 1,135.9 million, an increase of 46.9 percent. Does this signal

| District and Railroad | Treated wooden crossties laid in replacement (number) | | New crossties laid in replacement other than wooden (number) (12) | Switch and bridge ties laid in replacement (board ft.) (13) |
|----------------------------|---|-----------------------|---|--|
| | New ties (10) | Second-hand ties (11) | | |
| Eastern District | | | | |
| CSX | 32,040 | 0 | 14,938 (c) | 7,104 |
| Grand Trunk Corp. (CN) | 0 | 0 | 0 | 0 |
| Norfolk Southern | 128,052 | 0 | 15,772 (s) | 402,681 |
| Total | 160,092 | 0 | 30,710 | 409,785 |
| Western District | | | | |
| BNSF Railway | 112,299 | 0 | 347,356 (c) | 776,820 |
| Kansas City Southern | 3,105 | 0 | 27,737 (s) | 17,089 |
| Soo Line Corp. (CP) | 8,200 | 0 | 0 | 12,275 |
| Union Pacific | 135,416 | 0 | 172,564 (d) | 278,704 (e) |
| Total | 259,020 | 0 | 547,657 | 1,084,888 |
| Total United States | 419,112 | 0 | 578,367 | 1,494,673 |

Source: R-1 Annual Reports to the Surface Transportation Board

Footnotes: (c) Concrete ties (d) Includes 131,035 concrete ties and 41,529 steel ties (e) Includes 262,324 bd ft of wooden ties, plus 252 concrete ties assigned 65 board feet per tie. (s) Steel ties

anything to be concerned about? Probably not, as it appears the increase is both in maintenance ties (most likely meaning alternative tie replacing alternative tie) and a continuance of western RR's predisposition in their choice of materials for double and triple track construction in

high traffic density areas. RR's have been trying for some time to increase capacity along certain routes. This is viewed as confirmation of that ongoing effort.

The most positive news for wood suppliers is the 2015 Class 1 survey (Table 3), which illustrates increasing wood tie

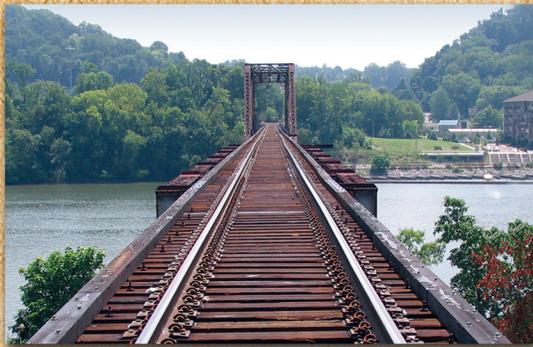
Table 3—Railway Tie Association Annual Survey

Estimated Crosstie Requirements • Class I Railroads
2015-2017 Inclusive

| Authorized Crossties for 2015 | | | | | | | | | | |
|---|----------------|--------------------|------------------|----------------|------------------------|---------------|---------------|---------------------|------------|----------------|
| District and Railroad | Total Track | New Wood Crossties | | Wood Relay | New Non-Wood Crossties | | | Switch Ties (Units) | | Bridge Timbers |
| | Mileage | Hardwood | Softwood | Crossties | Concrete | Steel | Other | Wood | Other | Units |
| Eastern U.S. | 51,987 | 5,862,013 | 0 | 197,920 | 75,000 | 31,200 | 0 | 235,000 | 0 | 155,600 |
| Western U.S. | 90,119 | 7,618,193 | 1,000,000 | 55,000 | 1,275,618 | 6,935 | 0 | 330,000 | 125 | 85,000 |
| Canada <small>& Canadian Owned U.S. Track</small> | 34,300 | 3,650,000 | 36,000 | 0 | 100,000 | 4,000 | 0 | 110,000 | 0 | 25,000 |
| TOTAL | 176,406 | 17,130,206 | 1,036,000 | 252,920 | 1,450,618 | 42,135 | 0 | 675,000 | 125 | 265,600 |
| Authorized Crossties for 2016 | | | | | | | | | | |
| District and Railroad | Total Track | New Wood Crossties | | Wood Relay | New Non-Wood Crossties | | | Switch Ties (Units) | | Bridge Timbers |
| | Mileage | Hardwood | Softwood | Crossties | Concrete | Steel | Other | Wood | Other | Units |
| Eastern U.S. | 51,987 | 5,862,013 | 0 | 197,920 | 75,000 | 31,200 | 0 | 235,000 | 0 | 155,600 |
| Western U.S. | 90,119 | 7,905,000 | 700,000 | 55,000 | 1,255,000 | 0 | 50,000 | 330,000 | 125 | 85,000 |
| Canada <small>& Canadian Owned U.S. Track</small> | 34,300 | 3,400,000 | 0 | 0 | 84,000 | 4,000 | 0 | 100,000 | 0 | 28,500 |
| TOTAL | 176,406 | 17,167,013 | 700,000 | 252,920 | 1,414,000 | 35,200 | 50,000 | 665,000 | 125 | 269,100 |
| Authorized Crossties for 2017 | | | | | | | | | | |
| District and Railroad | Total Track | New Wood Crossties | | Wood Relay | New Non-Wood Crossties | | | Switch Ties (Units) | | Bridge Timbers |
| | Mileage | Hardwood | Softwood | Crossties | Concrete | Steel | Other | Wood | Other | Units |
| Eastern U.S. | 51,987 | 5,862,013 | 0 | 197,920 | 75,000 | 31,200 | 0 | 235,000 | 0 | 155,600 |
| Western U.S. | 90,119 | 7,319,000 | 700,000 | 55,000 | 1,255,000 | 0 | 50,000 | 330,000 | 125 | 85,000 |
| Canada <small>& Canadian Owned U.S. Track</small> | 34,300 | 3,100,000 | 0 | 0 | 109,000 | 4,000 | 0 | 100,000 | 0 | 28,500 |
| TOTAL | 176,406 | 16,281,013 | 700,000 | 252,920 | 1,439,000 | 35,200 | 50,000 | 665,000 | 125 | 269,100 |

Notes: From CP Rail: 27,000 relay ties supplied internally in 2015 through track abandonments. Pre-plated ties make up 110,000 of the 1.35 million ties purchased in 2015. Demand remains strong for the coming years. Track capacity expansion projects including new sidings, siding, and yard extensions. From CN: Purchases linked to increasing work capacity. This year and 2016 will be stronger demand years than 2017 or 2018. From NS: NS does not anticipate any significant increases or decreases in tie quantities required in future years as compared to 2015 figures. From CSX: We anticipate to generally have the same annual program through 2018.

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*Strength: Adam M. Taylor, Barbara Jordan, and Jeffrey D. Lloyd. 2013. Pretreatment Decay, Strength Loss and their Prevention in Railroad Ties. Proceedings of the annual meeting of the International Research Group on Wood Protection. IRG/WP 13-30610

Longevity: The Amburgey Tie Test as reported in CrossTies, March/April, 2010.

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demand for this year and next. Compared to 2014 surveys, this year's Class 1 estimates include 500,000 additional tie purchases for 2015 through 2016. This may be a reflection of the catch-up required for ties not installed in 2014, or it could be an increase in fundamental demand. Either way it's a strong statement about planned CapEx spending continuing to benefit wood tie manufacturers.

What about the commercial markets, largely driven by regional and short line RR's - is strong demand expected to be present there?

Short Line & Regional Road Surveys

There are significant positives emanating from the smaller commercial markets.

This year's survey (Table 4) shows that installations exceeded the 2014 published survey projections for 2015 by 11.5 percent. Even if one accounts for the fact that different roads often report in each year's short line survey, the 2015 results still predict stronger anticipated usage for 2015 than had been expected from the 2014 surveys.

This is backed by anecdotal evidence from tie suppliers indicating that the commercial and short line markets remain strong.

However, the survey also projects a reduction in tie demand for 2016. Two points should be noted about this.

First, survey projections from short lines and regional roads have always displayed

a relative lack of certainty for future years at the time the RTA surveys are filled out. This probably has to do with the uncertainty of CapEx budgets for future years only halfway through any current year.

Second, timing is everything in these surveys. Earlier this year it was far from certain the short line RR tax credit would be enacted. Even if it was enacted, it was not suspected that it would be enacted any differently than any other year. As the reader may recall, for the past several years the tax credit only came to fruition at the last minute, in a tax extenders bill, and only retroactively for the current year. That minimized the impact of the credit because no road could plan for it to be in place. ➤

Table 4 - Short Line Survey Summary 2015

| Tie Categories | 2014 Usage | | 2015 Projected | | 2016 Projected | | 2017 Projected | | | | | | | |
|----------------------------------|------------------|---------------|------------------|---------------|------------------|---------------|------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| New 6" and 7" Ties | 3,087,981 | | 3,167,589 | | 2,543,066 | | 2,368,056 | | | | | | | |
| Relay 6" and 7" Ties | 228,373 | | 177,267 | | 80,628 | | 76,847 | | | | | | | |
| Grand Total All Wood Ties | 3,316,355 | | 3,344,856 | | 2,623,694 | | 2,444,903 | | | | | | | |
| Switch Ties | 64,984 | | 74,824 | | 61,707 | | 57,523 | | | | | | | |
| Bridge Timbers | 76,256 | | 58,986 | | 49,716 | | 45,069 | | | | | | | |
| Concrete Ties | 12,456 | | 10,952 | | 4,959 | | 4,959 | | | | | | | |
| Steel Ties | 90,919 | | 44,612 | | 21,490 | | 11,158 | | | | | | | |
| Composite/Plastic Ties | 0 | | 0 | | 207 | | 0 | | | | | | | |
| | 2015 | 2014 | 2013 | 2012 | 2011 | 2010 | 2009 | 2008 | 2007 | 2006 | 2005 | 2004 | 2003 | 2002 |
| Track Miles Reporting | 20,620 | 24,964 | 25,391 | 18,217 | 21,116 | 26,696 | 15,116 | 14,966 | 28,516 | 19,924 | 17,663 | 30,648 | 29,913 | 23,883 |
| Total Track Miles | 51,584 | 51,584 | 51,584 | 51,584 | 51,584 | 50,859 | 50,859 | 50,859 | 50,000 | 50,000 | 47,889 | 50,000 | 50,000 | 45,002 |
| % Reporting | 39.97% | 48.39% | 49.22% | 35.3% | 40.9% | 52.5% | 30% | 29% | 57% | 40% | 37% | 61% | 60% | 53% |
| Total Roads Reported | 176 | 197 | 192 | 157 | 185 | 191 | 117 | 116 | 139 | 130 | 115 | 170 | 111 | 114 |
| Total Short Lines | 558 | 558 | 572 | 572 | 572 | 572 | 572 | 306 | 455 | 633 | 633 | 633 | 533 | 575 |
| % Reporting | 31.54% | 35.30% | 33.57% | 27.4% | 32.3% | 33.4% | 20.5% | 38% | 31% | 21% | 18% | 27% | 21% | 20% |

In cooperation with the American Short Line and Regional Railroad Association.
 Note: Calculation based on Survey responses from 176 roads representing 31.54% of operating trackage.

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This year, however, a Senate version of the 45G credit worked into a tax extenders bill was crafted quite early and if enacted as written, it would extend the tax credit not only retroactively for 2015, but also throughout 2016. Survey respondents didn't know about or expect this when they returned their surveys in June.

Coupling uncertainty about tax credit availability at the time the survey was taken with a drop in reported short line and regional road traffic of about 5 percent (RailConnect Index), one can understand the reluctance for survey respondents to be bullish on 2016 purchases back in June.

However, now that the tax credit has the potential to carry forward into 2016, RTA expects the maximum effect for increased tie demand for this market next year. This could increase short line and regional road investment by an additional 500,000 ties over and above strong demand in 2015.

Final Notes

Positive survey information thus rests alongside potential conflicting and uncertain possibilities. What does the RTA economic team think? Earlier this year, these experts projected the odds of the world economies slipping into recession by the end of 2015 or early 2016 at 40 percent. Now the economic team thinks those odds are closer to 65 percent, possibly greater.

The positives for tie suppliers to consider include several specific things. First is that the U.S. economy remains the strongest economy in the world, and as goes U.S. GDP growth, so goes RR activity and investment/tie demand. Second, even throughout the worst recession since WWII (2007-2010) RR investment continued and tie suppliers saw "relatively"

low impact with only two years dipping just below 20 million ties purchased. Another positive to consider is that the short line and regional RR tax credit is likely to be in place for 2015 and all of 2016 early enough to have maximum stimulative effect on demand. This could buffer any traffic related dips in commercial market investment in rail infrastructure.

From the supply side, there is also better news. As other hardwood product demand has shifted and weather has improved, so have tie supplies. In most regions tie inventories are rising, some faster than others, with an eye toward equilibrium for air-dry inventories as early as Spring 2016 in the East. Western air-dry inventory may be a few months behind in the process of normalizing; it's encouraging to note that current demand is not only being met, but also that extra ties are now being stacked at a rate such that some RTA members see equilibrium returning to the marketplace within just a few months.

For these reasons, and barring any precipitous world event, RTA remains optimistic, but nevertheless adjusts the forecast published in the May/June issue of *Crossties* course to a projection of zero year-over-year growth in purchases for 2015 (23.0 million ties) and up to 2.4 percent growth to 23.6 million ties in 2016. Even if an event were to generate a worldwide recession, RTA would not expect demand to fall as much as it did from 2007 to 2010 which at its worst was 8 percent. For better or worse, the old married couple, railroads and tie suppliers, have more reasons to be optimistic than negative about the future of rail traffic growth generating increased maintenance and construction activity. ■

Weekly Hardwood Review Update

According to the Oct. 2 *Weekly Hardwood Review*, log supplies were good to abundant across all producing regions. Even mills across the North that struggled with wet weather through much of the summer now indicate they are filling up. Still, mills said their log piles were expensive relative to lumber, and one Appalachian mill said it couldn't get enough good White Oak logs to produce the quality of lumber its customers demanded.

Domestic lumber sales were steady, while export sales continued to "open up" for most contacts. Several contacts said lumber sales slowed in the second half of September, and some worried about the durability of Chinese demand.

For most species, demand and pricing for green lumber is now firmer than for KD, with yards reportedly trying to build inventories or just buy enough green lumber to keep their kilns full.

U.S. Hardwood Exports To SE Asia Reflect Difficult Market

According to the American Hardwood Export Council, global exports of U.S. hardwoods in the first half of 2015 were down in comparison to the same period in 2014.

However, some markets have shown significant growth according to the United States Department of Agriculture statistics.

The United States is still on target to export just more than \$2 billion worth of lumber for the second highest annual export total ever.

The value of American hardwood lumber exports to Southeast Asia totaled \$111.6 million from January-June 2015.

Although this is a decrease from the same point in 2014 some countries within Southeast Asia have made significant growth within the first six months of 2015: Indonesia, Thailand, Vietnam, Malaysia, Singapore and Philippines. ■

Table 5 - Forecast Summary
New Wood Crossties (in thousands)

| Year approx | Real GDP | Class 1 Purchases | Small Market Purchases | Total Purchases | Pct |
|-------------|----------|-------------------|------------------------|-----------------|-------|
| 2011 | 1.6% | 16,525 | 5,363 | 21,888 | 11.8% |
| 2012 | 2.3% | 16,968 | 6,054 | 23,023 | 5.2% |
| 2013 | 2.2% | 17,131 | 7,317 | 24,448 | 6.2% |
| 2014 | 2.4% | 15,931 | 7,083 | 23,014 | -5.9% |
| 2015 | 2.5% | 16,558 | 6,415 | 22,973 | -0.2% |
| 2016 | 2.8% | 17,497 | 6,017 | 23,513 | 2.4% |