

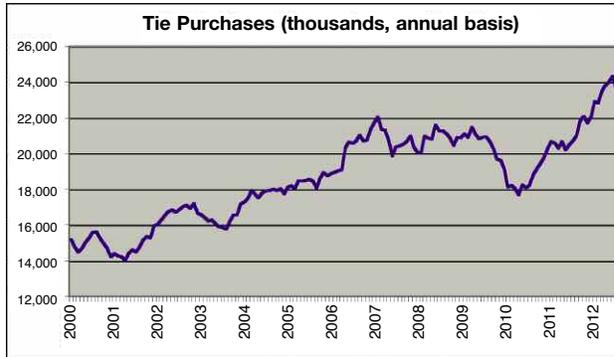
# Will The Weak Economy Support Crosstie Demand?

By Fred Norrell

The tie market is thriving, yet the economy seems to be in a deflation mode: Standard & Poor's (S&P) economic forecasts are dropping with each new report; one can see reduced outlooks for GDP, inflation and oil prices (see Table 1). Yet, in the midst of current and expected economic weakness, tie purchases are surviving.

The conflict seems to lie in the expectations of economic forecasters in contrast to the plan for railroad traffic growth. Economists see deflation, or weak and slowing growth; railroads see a need to expand capacity.

RTA has constructed an econometric model that uses economic inputs (GDP playing a prominent role) and predicts tie purchases. Given the less-than-stellar economy and the strong tie purchases, the RTA model predicts tie purchases on the low side. Therefore, in the tie purchases forecast presented below, assumptions have been made to maintain continuity between recent



tie purchases reported by RTA producers and the early year's forecast of the same.

By the end of the forecast period (2015), the RTA adjusted tie demand outlook returns to the econometric model predictions (see Table 2).

The forecast of economic variables is provided by S&P and reveals anemic growth during the current year and for 2013. Although there are threats to continued growth, current events support the outlook for gradual recovery. In the crosstie market, recent momentum carries through 2013, and weakness appears by 2014. Beyond that, economic growth spurs the demand for ties. ■

**TABLE 1—Economic Deflation**  
Falling Forecasts

Forecast dates	GDP May-2012	GDP Sep-2012	Inflation May-2012	Inflation Sept-2012	Oil Price May-2012	Oil Price Sep-2012
2013	2.4%	1.8%	1.7%	1.4%	\$112.90	\$89.68
2014	3.4%	2.8%	1.9%	1.8%	\$110.87	\$85.75
2015	3.4%	3.4%	2.0%	1.7%	\$108.16	\$81.00

**TABLE 2—Forecast Summary**  
New Wood Crossties (in thousands)

Year approx.	Real GDP	Class 1 Purchases	Small Market Purchases	Total Purchases	Pct.
2008	-0.3%	16,761	3,907	20,668	0.2%
2009	-3.1%	16,216	3,432	19,648	-4.9%
2010	2.4%	16,379	3,200	19,579	-0.4%
2011	1.8%	16,525	5,363	21,888	11.8%
2012	2.2%	17,897	4,961	22,858	4.4%
2013	1.8%	17,992	4,863	22,855	0.0%
2014	2.8%	17,961	4,495	22,456	-1.7%
2015	3.4%	18,437	4,407	22,844	1.7%



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# Vive La Différence

## 2012 Tie Demand Beyond Expectations

### By Jim Gauntt

A year ago, based on economic data that could surely be described as uncertain, the RTA forecast summary pegged 2012 tie demand to approach 20 million ties.

Although there may have been some bright spots on the horizon, no one expected the 12-month rolling total of tie purchases through August of 2012 to approach 24 million ties (see RTA Purchases Report at [www.rta.org](http://www.rta.org)).

As we head into fall, though, that's exactly what RTA producers have reported. Some of this may be explained by reporting corrections, increasing exports, and railroad demand to build out infrastructure for oil shale projects and other capacity-oriented construction.

Without a tax credit to rely on, however, and with the same economic outlook perspectives as illustrated in the previous arti-

cle on page 9, some readers might be scratching their heads wondering how this is possible.

Maybe a look back at the data will shed some light on the subject.

### 2011 Class 1 Data

A glance at 2011 data as provided by the AAR through US R-1 reporting illustrates that maintenance new wood ties installed were virtually unchanged from 2010: 14.15 million in 2011 vs. 14.13 million in 2010 (see Table 1). So, 20,000 more does not explain much of the increase.

For new construction, however, tie demand was up nearly 70,000 (see Table 2). This gives credibility to the reports that construction using new wood ties for new infrastructure and capacity was in the works as previously reported.

Canadian-reported total installs for new

wood ties were also up for maintenance and construction by about 60,000 ties. All told, 2011 saw 16.53 million new wood ties installed by Class 1 railroads. Last September's forecast summary for 2012 was 16.24 million.

New construction work in infrastructure capacity build-out for oil shale projects previously reported on earlier this year was not anticipated in the forecast summary for Class 1's in mid-2011. Given that, last September's forecast of 16.24 million new wood tie demand was a reasonable one. Upon inclusion of this consideration and with improving economic data factored in, the forecast summary for 2012, Class 1 demand was adjusted upwards to 17.67 million in RTA's January forecast assumptions. Now it looks like this is a target that could easily be exceeded by the end of the year.

**TABLE 1—Crossties Laid In Replacement Statistics For Class 1 Railroads In The U.S. In 2011**

District & Railroad	Treated wooden crossties laid in replacement (#)		New crossties laid in replacement other than wooden (#)	Track maintained by reporting railroad		Crossties per mile (1967)	New crosstie replacement avg.		Switch and bridge ties laid in addition (board ft.)
	New Ties (1)	Second-Hand Ties (2)		Miles occupied by crossties (a) (4)	Total crossties (b) (5)		% renewal to all ties (7)	# laid per mile (8)	
<b>Eastern District</b>									
CSX	3,308,070	0	4,580 (c)	30,414	90,877,032	2,988	3.65%	109	10,112,144
Grand Trunk Corp. (CN)	623,221	0	2,894 (c)	9,565	30,177,575	3,155	2.07%	65	1,289,249
Norfolk Southern	2,645,317	409,889	1,550 (d1)	29,357	90,302,132	3,076	2.93%	90	9,342,6190
<b>Total Eastern District</b>	<b>6,576,608</b>	<b>409,889</b>	<b>9,024</b>	<b>69,336</b>	<b>211,356,739</b>	<b>3,048</b>	<b>3.12%</b>	<b>95</b>	<b>20,744,012</b>
<b>Western District</b>									
Burlington Northern Santa Fe	3,388,222	0	115,582 (c)	39,864	123,379,080	3,095	2.84%	88	5,152,160
Kansas City Southern	549,445	0	0	4,005	12,811,995	3,199	4.29%	137	212,242
Soo Line (CPR)	251,837	14,299	0	5,659	17,084,521	3,019	1.47%	45	705,138
Union Pacific	3,381,900	120,464	246,269 (d2)	43,035	128,244,300	2,980	2.83%	84	7,834,880 (e)
<b>Total Western District</b>	<b>7,571,404</b>	<b>134,763</b>	<b>361,851</b>	<b>92,563</b>	<b>281,519,896</b>	<b>3,041</b>	<b>2.82%</b>	<b>86</b>	<b>13,904,420</b>
<b>Total United States</b>	<b>14,148,012</b>	<b>544,652</b>	<b>370,875</b>	<b>161,899</b>	<b>492,876,635</b>	<b>3,044</b>	<b>2.95%</b>	<b>90</b>	<b>34,648,432</b>

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

Beginning 2010, Soo Line Corporation includes Soo Line Railroad, Delaware and Hudson Railway, Dakota, Minnesota & Eastern Railroad, and small rail-related companies. Zero Second-Hand Other-Than-Wooden ties, not shown in the table above, were laid in replacement in 2011.

**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) 850 concrete ties and 700 non-wooden-non-concrete ties. (d2) 226,000 concrete ties and 20,269 non-wooden-non-concrete ties. (e) Includes 126 concrete or steel switch ties, all assigned 65 board feet per tie.

**Small Market Purchases**

Based on RTA's exclusive surveys of the short line industry in 2012, it would appear that short lines had a great year in new wood tie installs. If one compares 2011's short line survey results to this year's survey results, short lines boosted installations by more than 250,000 crossties and 300,000 switch ties than they expected to at this time last year. That is a remarkable increase especially without the guarantee of a tax credit being in place by the end of the year.

Short line industry officials have only been cautiously optimistic that after the election and with as much broad bipartisan support this credit has had in the past, the tax incentive may be passed into law during the ensuing lame duck session. Yet, those roads that could afford to be aggressive in maintenance and construction may have chosen to do so no matter the outcome of this legislative initiative.

So, adding in 550,000 more small market ties to the increased baseline of 2011 Class 1 increase of 280,000 ties adds 830,000 ➤

**TABLE 2—For Calendar Year 2011  
Crossties Laid In Addition Statistics For Class 1 Railroads In The U.S.**

District & Railroad	Treated wooden crossties laid in addition (number)		New crossties laid in replacement other than wooden (number) (12)	Switch and bridge ties laid in addition (board ft.) (13)
	New Ties (10)	Second-hand ties (11)		
<b>Eastern District</b>				
CSX	69,494	0	0	212,430
Grand Trunk Western (CN)	0	0	0	0
Norfolk Southern	49,422	0	5,801 (s)	32,288
<b>Total Eastern District</b>	<b>118,916</b>	<b>0</b>	<b>5,801</b>	<b>244,718</b>
<b>Western District</b>				
Burlington Northern Santa Fe	10,449	0	22,038 (c)	6,520
Kansas City Southern	19,904	0	0	150,989
Soo Line (CPR)	13,425	0	0	11,886
Union Pacific	60,587	4,098	96,460 (c)	274,196 (d)
<b>Total Western District</b>	<b>104,365</b>	<b>4,098</b>	<b>118,498</b>	<b>443,591</b>
<b>Total United States</b>	<b>223,281</b>	<b>4,098</b>	<b>124,299</b>	<b>688,309</b>

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

**General Notes:** \*Beginning 2010, Soo Line Corporation includes Soo Line Railroad, Delaware and Hudson Railway, Dakota, Minnesota & Eastern Railroad, and small rail-related companies

**Footnotes:** (c) Concrete ties (d) Includes 126 concrete ties, all assigned 65 board feet per tie. (s) Steel ties

**TABLE 3—Railway Tie Association Annual Survey\***

**Estimated Crosstie Requirements • Class 1 Railroads  
2011-2013 Inclusive**

**AUTHORIZED CROSSTIES FOR 2012**

Region	Total Track Miles	New Wood Crossties		Wood Relay Crossties	New Non-Wood Crossties			Switch Ties (Units)		Bridge Timbers Units
		Hardwood	Softwood		Concrete	Steel	Other	Wood	Other	
Eastern U.S.	51,800	6,000,000	0	30,000	100	6,000	0	260,000	0	51,000
Western U.S.	84,978	8,100,000	400,000	25,000	650,000	70,000	25,000	380,000	0	78,000
Canada & Canadian Owned U.S. Track	37,100	2,840,000	285,000	15,000	70,600	15,000	0	100,000	2,800	20,385
<b>TOTAL</b>	<b>173,878</b>	<b>16,940,000</b>	<b>685,000</b>	<b>72,000</b>	<b>790,100</b>	<b>125,000</b>	<b>25,000</b>	<b>740,000</b>	<b>2,800</b>	<b>149,385</b>

**AUTHORIZED CROSSTIES FOR 2013**

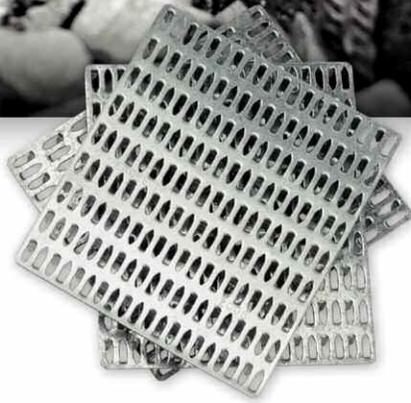
Region	Total Track Miles	New Wood Crossties		Wood Relay Crossties	New Non-Wood Crossties			Switch Ties (Units)		Bridge Timbers Units
		Hardwood	Softwood		Concrete	Steel	Other	Wood	Other	
Eastern U.S.	58,350	6,000,000	0	15,000	100	0	0	260,000	0	51,000
Western U.S.	84,978	8,100,000	400,000	25,000	750,000	85,000	25,000	370,000	0	78,000
Canada & Canadian Owned U.S. Track	37,100	3,031,000	180,000	30,000	75,645	15,000	0	64,000	1,500	20,385
<b>TOTAL</b>	<b>180,428</b>	<b>17,131,000</b>	<b>580,000</b>	<b>70,000</b>	<b>825,645</b>	<b>100,000</b>	<b>25,000</b>	<b>694,000</b>	<b>1,500</b>	<b>149,385</b>

**AUTHORIZED CROSSTIES FOR 2014**

Region	Total Track Miles	New Wood Crossties		Wood Relay Crossties	New Non-Wood Crossties			Switch Ties (Units)		Bridge Timbers Units
		Hardwood	Softwood		Concrete	Steel	Other	Wood	Other	
Eastern U.S.	58,350	6,000,000	0	15,000	0	0	0	260,000	0	51,000
Western U.S.	84,978	8,100,000	400,000	25,000	750,000	25,000	25,000	370,000	0	78,000
Canada & Canadian Owned U.S. Track	37,100	3,152,000	146,754	25,000	85,000	5,000	0	100,000	1,500	20,385
<b>TOTAL</b>	<b>180,428</b>	<b>17,252,000</b>	<b>546,754</b>	<b>65,000</b>	<b>835,500</b>	<b>30,000</b>	<b>25,000</b>	<b>730,000</b>	<b>1,500</b>	<b>149,385</b>

**Notes:** From CP: The demand is trending in a positive direction but is dependent and sensitive to the economy's performance. 4,000 annual hardwood crossing timbers are not included in the survey numbers reported. From CN: Overall purchase requirements will remain between 2M to 2.2M ties, depending on special projects, (revenue opportunities that require track upgrades). Concrete tie replacement will likely also grow.

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more new wood demand to 2012 forecast expectations.

But the smaller market is composed of more than just the short lines; it encompasses railroad contractors' activity, government installations and exports as well.

Anecdotal evidence from the contractor market segment and RTA's major producers indicates that activity in all areas has increased in 2012. From transit and light rail projects to work in industrial parks and ports, more ties have been sold in 2012 to this commercial business segment than in many years. Since there are no reliable surveys to quantify this, just how much is a guess. RTA reporters have been adamant, though, commercial business activity is very strong.

Then there is the question of exports. From China to Brazil, the Caribbean to Africa, the demand for U.S. hardwood and softwood ties is increasing. New dual-treated tie production techniques and new producers out West using new preservatives such as ACZA are both contributing to increased outflow of wood tie exports.

RTA has been working with U.S. Department of Commerce data all year long trying to quantify the effect of increasing export demand. Unfortunately, this has proven to be a bigger challenge than expected with little confidence in the results. But, again reports from producers tell the story that 2012 has also been a very good year for exports of new wood ties.

Add it all up and no one is complaining about tie purchases exceeding 22 million for 2012. So, what's in store for 2013?

## **There's The Forecast & Then There Are The Surveys**

In the previous article, on page 9, economic conditions are explored and a forecast summary is presented. With the data now available, that summary illustrates a relatively stable demand scenario for the next three years. What do the Class 1 and short line survey tell?

Class 1's all seem to agree that 2013-2015 will see demand in the 17 million range, give or take 100,000 ties or so. This also would point to a relatively stable marketplace and agree with the general outline of the market forecast summary.

Short lines, as in the past, are not as optimistic about the future of what they can

commit to. RTA has reported on this before, and a look back at any of the last few annual short line surveys illustrate that future forecasts of tie demand from short lines almost always fall short of what they know is happening in the current year.

Given capital constraints, consolidation and no sure-fire guarantee of a tax credit, this is understandable. So, it is difficult to use that lack of optimism as part of a reasoned outlook.

Furthermore, reports from producers do not indicate any lack of inquiries for commercial tie business or exports; in fact, more treating capacity is coming online and planned.

Thus, there is nothing from the surveys or marketplace conversation to firmly dispute the forecast summary's conclusions. Plus, production seems to be more than up to the task.

So, mid-to-high 22 million tie demand for the next three years, production easily matching that, and producers and users should have smooth sailing with no worries in sight, right?

Oh yeah, there's the U.S. and world economy, the Middle East, the elections,

**TABLE 4—The Railway Tie Association\* 2011 Short Line Crosstie Survey**

Tie Categories	2011 Usage	2012 Projected	2013 Projected	2014 Projected
New 6" & 7" Ties	1,917,407	2,941,649	2,490,775	2,269,560
Relay 6" & 7" Ties	260,751	516,610	111,069	153,444
<b>Grand Total</b>				
<b>All Wood Ties</b>	<b>2,178,159</b>	<b>3,458,259</b>	<b>2,601,844</b>	<b>2,423,004</b>
Switch Ties	761,023	1,065,332	785,158	594,946
Bridge Timbers	15,439	35,233	35,718	22,259
Concrete Ties	428	0	0	0
Steel Ties	342	3,029	5,607	7,022
Composite/Plastic Ties	0	0	0	0
	<u>2012</u>	<u>2011</u>	<u>2010</u>	<u>2009</u>
<b>Track Miles Reporting</b>	18,217	21,116	26,696	15,116
<b>Total Track Miles</b>	<b>51,584</b>	<b>51,584</b>	<b>50,859</b>	<b>50,859</b>
% Reporting	35	41	53	29
<b>Total Roads Reported</b>	157	185	191	117
<b>Total Short lines</b>	<b>572</b>	<b>572</b>	<b>572</b>	<b>306</b>
% Reporting	27	32	33	21

\*In cooperation with the American Short Line and Regional Railroad Association.

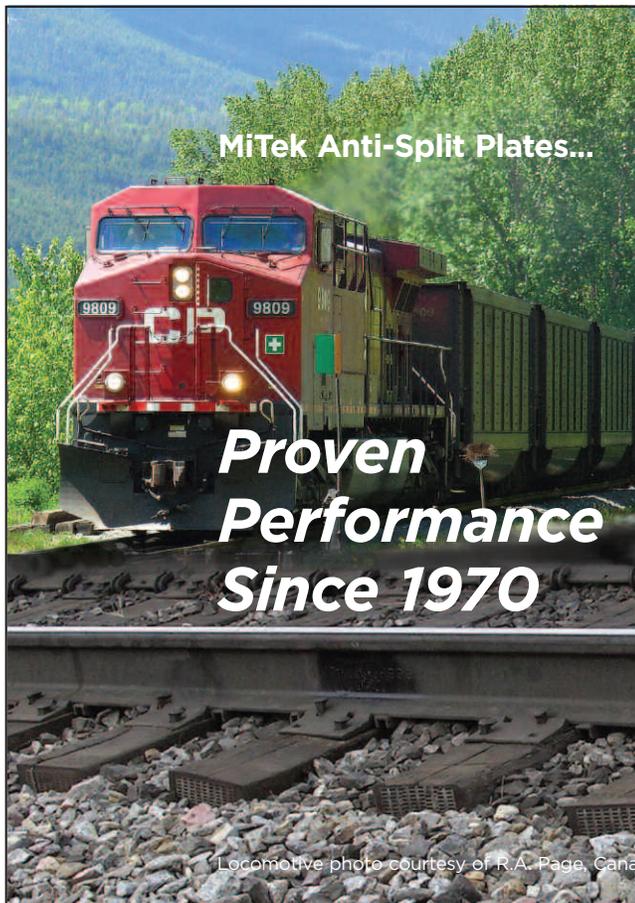
Note: Calculation based on Survey responses from 240 roads representing 60% of operating trackage.

Euro-zone upheaval, increasingly volatile medical care costs, energy production and preferences, conservation and environmental issues to consider.

But, navigating it all is a hallmark of the wood tie industry and will be so much

more palatable with trains running and maintenance needs stable at such unexpectedly high levels. ■

*RTA wishes to thank the Class 1 RRs, AAR and ASLRRA for their help in providing tables and survey results.*



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