

No Matter How You Look At It...

Stage Set For Energetic Market Dynamics Throughout 2015 By Jim Gauntt

Approximately 16 months ago, the wood tie market began to show signs that change was in the air. By August 2013, it had become clear to almost everyone who follows tie procurement that the quantity of new ties flowing into RTA member treating plants was nowhere near enough to meet demand.

By the end of 2013 year to date, modest price increases in September did little to slow inventory reductions. Tie inventories at production plants were down more than 1 million ties. Total production ended with just over 15 percent.

As reported in presentations at the RTA conference last year, there were a number of factors that contributed to the increasing demand for hardwood lumber, both domestically and internationally. Also, a huge ramp up in crane mat and board road production for the pipeline and oil industries led to premiums in hardwood lumber and timber pricing.

The wettest year on record since 1895 in tie-producing regions added to the woes at sawmills as log decks dwindled while demand for all hardwood products grew at an accelerating pace.

The picture did not change much going into 2014, and in March, railroads put out another round of price increases to stem the tide of ebbing production.

In May 2014, tie inventories grew for the

first time in 15 months, but only by the slimmest of margins. Still, for the year, production was 13.6 percent below the same time period in 2013.

As tie supplies grew short, and some smaller railroads began to realize their orders might not get filled on a timely basis, some turned to steel ties because they “had to” (according to reports). And, this appears to be confirmed by preliminary RTA short line and regional railroad survey results that indicate a surprising number of steel ties on order for 2014 installation. NOTE: It is too early to tell if this is a fundamental shift for the future at these roads, since performance and pricing concerns remain an issue for this competitive product. But wood tie producers now have reason to pay attention to these market dynamics as wood production recovers.

During all of this time, at the behest of Class 1 railroads, RTA economists were digesting data provided by the *Hardwood Market Report* for insight. This work included charting nominal pricing for green crossties matched to similar data for traditional red oak benchmark products. The research

also included adjustment for inflation over a 20-year period to see how “real” green tie prices compared to benchmarks. Finally, a study was conducted to see what could be learned about the correlation of green crosstie prices with presumed benchmarks. The results were surprising.

The Analysis

The first thing to note when looking at any of the results (Figures 1-3) is that from 1994 until the great recession began in 2007, green tie prices followed the market pricing for #1 common red oak and green 4/4 red oak in “roughly” similar patterns. Compare all of the price graphs to production and inventory, and one can see how “normal-for-ties” market forces appear to prevail upon tie pricing from

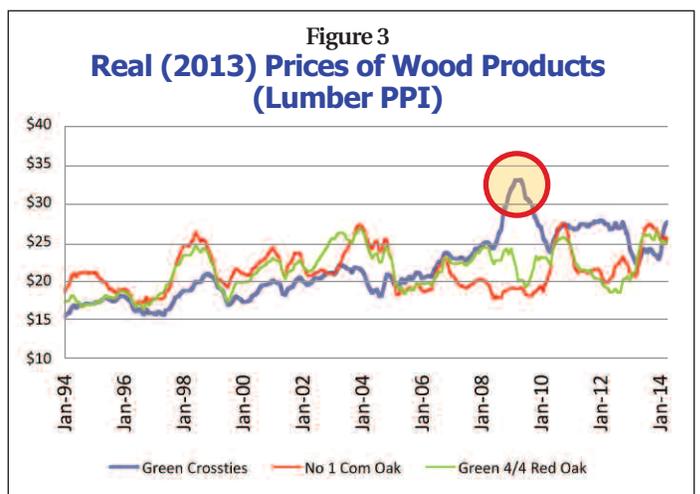
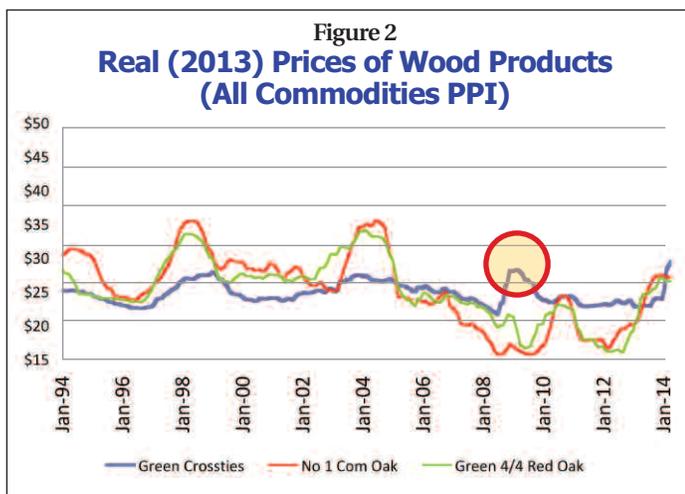
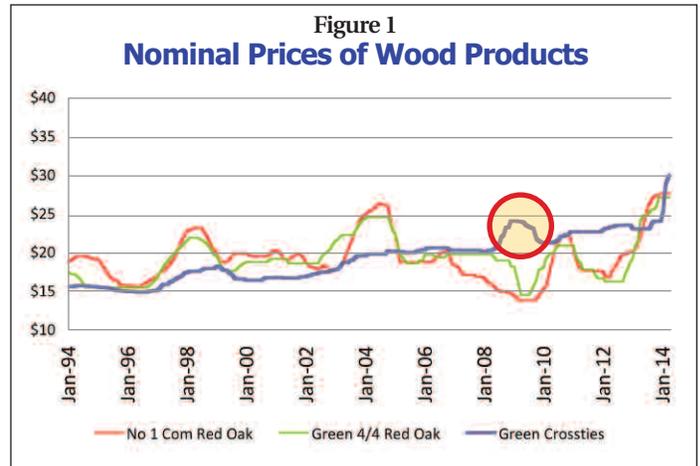


Figure 4
Tie Production, Purchases, Inventories
12m Rolling Totals

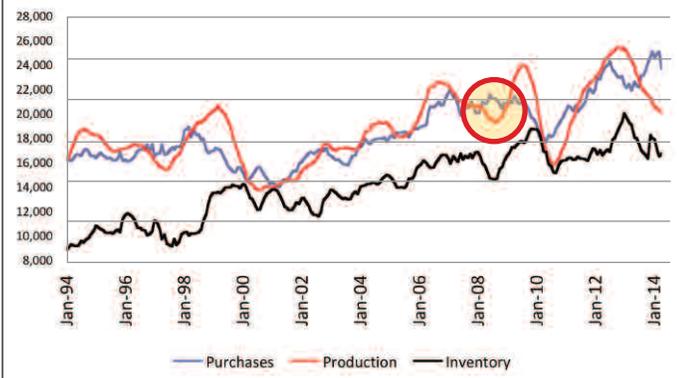


Table 1
Correlations Between Prices Of Various
Wood Products & Green Wood Crossties

	Jan. 1994 - May 2014	Jan. 1994 - Dec. 2007	Jan. 1994 - Dec. 2007 & Jan. 2010- May 2014
Nominal Prices			
Select Plain Red Oak	-0.09	0.20	0.56
No. 1 Common Red Oak	0.20	0.41	0.69
Green 4/4 2A Red Oak	0.39	0.69	0.80
Real Prices			
Select Plain Red Oak	0.41	0.48	0.57
No. 1 Common Red Oak	0.46	0.62	0.67
Green 4/4 2A Red Oak	0.52	0.73	0.72

1994 until 2008. Normal-for-ties could be described as “prices generally move in the same direction, however, tie prices do not appear as prone to the same degree of volatility as the prices of other wood products.” This could be due to the nature of tie purchase agreements and maturity of the industry, but one can certainly see the similarities in this timeline.

But then, departure of green tie prices from benchmarks comes barreling at the industry

during the 2008-2009 time period (see red circled area in all graphs). And, in some ways, the case could be made that things have not been the same since.

Figure 1 illustrates nominal prices of the three aforementioned products from 1994-2014 (to date). The big departure from correlation in nominal prices appears during the recession. While the bottom dropped out for hardwood lumber prices during the recession,

and many sawmills were closing their doors, railroads continued to build for the future. A review of purchases (Figure 4) clearly shows that railroad investment did not abate during this time and as a result inventories of ties plummeted and prices escalated.

So, adjusting for inflation, Figure 2 uses an “all commodities” Producer Price Index (PPI) to view the same products when adjusted with this measure of inflation. The first thing to ➤



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note is that after the big lapse in correlation in 2008-2009, real tie prices settled down to levels “below” those of 1994. Not until price increases began to be approved by railroads in late 2013 and 2014 did real tie prices recover to 1994 levels and then begin to approach the peak levels seen in 2008-2009.

Figure 3 looks at inflation for these products through the lens of the hardwood lumber (only) PPI. Here, the lapse in correlation is even more evident in this view. Another key point to note is that even with the increases in nominal prices over the past year, real green tie prices remain significantly below the 2009 peak.

Figure 4 expresses purchases, production and inventory along the same 20-year timeline. A point worth noting here is that larger than average price increases are most evident in times where not only production is constrained, but also when tie inventories are sharply, and perhaps unexpectedly, drawn down by stout demand.

Table 1 illustrates the correlations between nominal and real green tie prices and the presumed benchmarks for the 20-year timeline. Needless to say, the weak long-term correlation clearly illustrates that even though the benchmarks historically used may have been somewhat helpful in the past, and are the best the industry have been able to identify, they are of marginal value in business planning when it comes to predicting tie prices. The table also shows correlations for select time periods chosen to specifically eliminate volatility. However, even massaging the data in this way does not produce results that could build confidence in these benchmarks being useful as predictive tools.

The current state of the industry from an inventory and production standpoint coupled with increasing railroad demand and a more intense competitive landscape, has set the stage for energetic, and likely fatiguing, market dynamics over the next 18-24 months. Understanding the lessons that can be gleaned from these historical studies may make it possible in the future to ameliorate some of the volatility recently experienced.

All of this economic research and each of the graphs will be updated on a monthly basis and in the near future will be found at

<http://www.rta.org/statistics>. ■