

Look For Tie Market To Improve

Plateau May Follow Down The Road

By Fred Norrell

The past few years have witnessed an invigorated crosstie market. Economic growth has pushed freight volumes to new heights, while higher fuel prices have shifted market share from trucks to railroads. Because of deregulation, railroads are now flexible and free to take advantage of business opportunities. Both economic growth and increased international trade have been presenting such opportunities. Railroad suppliers have seen similarly improved market conditions.

The Railway Tie Association's (RTA) outlook incorporates this upsurge but also suggests a plateau—or flattening out—may occur in a couple of years. This is in keeping with the expected economic climate.

What Is The Forecast Based On?

This forecast is the product of econometric equations that have been estimated from, or fitted to, historical data. At the beginning of the process lies a forecast of the U.S. economy provided by Yale University and referred to as the Fair model after its chief architect, Dr. Ray Fair. From this model's projections are derived projections used in RTA's econometric model of the tie market.

The Economic Forecast

Based on the Fair model, "smooth sailing" describes the immediate outlook that is followed by a gentle slow-down in growth. The Federal Reserve does not upset the apple cart. This is seen from three-month T-bill rates, which peak at 5 percent in 2007 and settle down to 4.8 percent by 2009. At this writing, the rate has passed 5 percent by a small margin. Longer-termed rates top 6 percent in 2007 and continue to climb, reaching 6.7 percent by 2009. Fiscal policy is cast in a less-than-dramatic role; real federal government spending is assumed to grow at 3 percent annually—a moderately expansionary posture—which pushes upward on Gross Domestic Product (GDP), which grows at 2.8 percent.

Inflation, as measured by the GDP deflator, peaks at 4.1 percent in 2007 but then moderates, averaging 3.7 percent during the period 2006 through 2009. Oil prices are not specifically modeled, but the model's price index increases at 2.5 percent. Since overall inflation is higher, this implies oil prices are not feeding inflation during the forecast period. U.S. exports and imports are projected to continue strong growth,

while the trade deficit expands. Real GDP growth is expected to peak in 2006 followed by a period of below-trend growth. This information is taken as input to RTA's econometric model of the tie market.

North American Class 1 Tie Purchases

Purchases are based on miles of track owned and ton-miles of freight moved each year. For some years now, Class 1 railroads have abandoned and sold track to smaller roads. In 2005, a significantly higher-than-average 2 percent of track was so rationalized. Since this is more than normal, RTA assumes a closer to average 1 percent is rationalized in future years (*Table 1*).

Freight, on the other hand, is expanding at a healthy pace. The model shows a dramatic rise in 2006 followed by modest performance. The freight model is based on Real GDP, changes in coal shipments, and the real price of diesel. Economic growth and high fuel prices have stimulated coal shipments (projected up by 12 percent in 2006). However, as overall economic growth and fuel prices moderate in future years, the growth in coal shipments slow as well. At the same time, slowing economic growth exerts a similar effect on other (non-coal) freight. Additionally, as fuel prices stabilize in 2007 and after, the shift in market share from truck to rail settles down. The net result of all these forces is a plateau effect on freight for which a high level is established in 2006 and is followed by more modest performance (*Table 1*).

Class 1 railroad tie purchases follow a similar path in that, according to the model, this year's tie purchases depend on both this year's and last year's freight. Thus, tie purchases growth is predicted to extend into 2007 and then stabilize.

Small Market Tie Purchases

The small market is here defined as all tie buyers that are not Class 1 railroads; the small market is composed mostly of regional and short line railroads. Since operations data are not as readily available for this group, RTA's model is here more generalized. Tie purchases are based on U.S. non-durable manufacturing volume, the real price of diesel, and miles of track

**TABLE 1—Forecast Summary, Thousands Of New Wood Ties
North American Class 1=U.S. + CN + CP**

Year	% Real GDP	US Class 1			New Wood Tie Purchases	%
		% Coal	% Freight	Track		
2003	3.0	-0.1	2.9	169	13,578	0.6
2004	4.4	1.0	7.0	167	14,007	3.2
2005	2.7	1.6	2.2	164	14,729	5.2
2006	3.4	12.2	11.2	162	15,866	7.7
2007	2.6	2.9	-1.3	161	16,666	5.0
2008	2.5	1.9	1.9	159	16,402	-1.6
2009	2.7	2.1	2.7	157	16,667	1.7

**TABLE 2—Forecast Summary, Thousands Of New Wood Ties
Small Market**

Year	% Non-Durable Manufacturing	% Real Price of Diesel	US Class 1 Track Rationalized	New Wood Tie Purchases	%
2003	2.4	26.7	-1.0	2,907	-20.3
2004	2.2	24.9	-1.8	4,000	37.6
2005	0.4	43.5	-3.5	4,090	2.3
2006	1.0	16.7	-1.6	4,336	6.0
2007	-0.2	-0.7	-1.6	4,586	5.8
2008	-0.3	-0.4	-1.6	4,521	-1.4
2009	0.1	-0.2	-1.6	4,525	0.1

rationalized by Class 1 railroads. The logic is that non-durable manufacturing drives freight volume since GDP does not perform well as a driver for this market segment. Also, as the real price of diesel increases, small railroads experience more financial constraints than Class 1s (likely due to their reduced capacity for hedging fuel purchases) and therefore purchase fewer ties. As ex-Class 1 track is acquired and operated by smaller roads, the latter group tends to purchase more ties. As Table 2 shows, non-durables are projected to be flat, as are diesel prices. However, consistent track acquisitions drive up small market tie purchases, especially in 2006 and 2007.

Concerns

The RTA model contains no variables that represent changes in railroad tax credits, and this phenomenon appears to be omitted. Yet, some of this effect may be captured in the moderately large 2005 track acquisition and the steady acquisitions thereafter. Also, the model cannot account

for major new construction projects that may occur such as the renovation and extension of the Dakota, Minnesota & Eastern (DM&E).

Another issue to reflect on is the effect of international trade and finance. Fair's economic forecast indicates no imminent balancing of the U.S. trade deficit, and the moderate change in import prices reveals no significant fall in the U.S. dollar in terms of foreign exchange. But should the dollar plunge, several changes would likely alter the outlook. First, U.S. coal exports would increase, as would all U.S. exports. However, U.S. imports would slow or fall, and intermodal freight volume could drop. U.S. non-durable manufacturing would be stimulated and might enter a growth phase. This possibility, while positive, could be

TABLE 3—Forecast Summary, Thousands Of New Wood Ties

Year	Total Purchases	Class 1 Purchases	Small Market Purchases
2003	16,485	13,578	2,907
2004	18,006	14,007	4,000
2005	18,819	14,729	4,090
2006	20,202	15,866	4,336
2007	21,252	16,666	4,586
2008	20,923	16,402	4,521
2009	21,202	16,677	4,525

offset by higher import (diesel) prices.

One caveat: this market outlook (Table 3) is structured on the demand side of the market. The numbers shown represent "desired" tie purchases, which can only be realized if supply allows.

Summary

After hitting a low in 2000, the tie market has rebounded by 27 percent (Table 3). RTA sees potential for continued growth through 2007. Beyond that, a slowing economy takes its toll on the market, and tie purchases could stabilize for a few years. §

Counterpoint & The Cloudy Crystal Ball By Jim Gauntt

The RTA econometric model has proved to be a reliable forecasting tool for the past several years and has become a mainstay for many in the industry in how they plan for the future. Unfortunately, actual new wood tie purchases depend on certain "random" events that can alter what tie suppliers realize in sales.

A few years ago, heavy investment by railroads in locomotives, rail and other budget-stretching items created a drain on tie purchases. Plus, we live in a time when other worldwide events and fears can create dramatic economic changes in a heartbeat.

Thus, readers should always keep in mind that what the fundamentals predict tie purchases are likely to be may be altered by certain changes implemented by users operating in the real world.

One example of this is that creosote supply is currently stretched to the very limits. Some of this is due to higher than expected demand for wood ties at the same time other worldwide markets for coal tar distillate by-products are at their peaks for demand as well. As market dynamics re-balance in the face of tight demand, certain random events could affect how many ties are purchased in the ensuing years.

If costs to railroads increase, then budget constraints could impact overall demand. But other things could occur as well.

For example, if certain users of ties accelerate their use of alternative tie materials, demand could be impacted. Already there are suggestions in the market that in 2007 as many as an additional 600,000 to 800,000 alternative ties could be sought by Western railroads to deal with supply issues. However, those same entities that may install more concrete ties are reporting that track degradation due to increasing traffic den-

sity could keep wood tie demand at elevated levels even with more concrete tie installations. This would certainly keep the pressure on wood tie suppliers.

Another factor to consider is that the environment is likely to change with respect to the use of alternative preservatives. In 2007, it is reported that as many as 150,000 to 350,000 wood ties will be treated with copper naphthenate. Yet others, who are pre-treating upwards of 450,000 ties annually with borate compounds, may get the go-ahead from their customers to experiment with reducing creosote retentions. This would indeed extend the supply of preservative treated wood ties, but, taken in the context of other factors mentioned, could make future planning for wood preservative suppliers even more delicate.

Of course, there are other events that could also occur. The DM&E railroad could begin its long anticipated track extension into the Powder River Basin and upgrade of its existing plant, adding more demand on top of the forecast. And, short line and regional railroads still have that tax credit to use.

For all these reasons the forecasting crystal ball is a little cloudier than normal at this time. One could make the case that the model's forecast is too conservative. On the other hand, arguments could be made that reports of excessive inventories at some locations, along with increased alternative product usage, could keep tie demand lower than what the model predicts.

As the next few months unfold, suppliers to wood preserving plants and treaters themselves are urged to watch for the signs of these developing events and not just rely on the RTA model as they plan for the future of their businesses. §