



Industry news

- **Plan to Hike Timber Harvest on Maine Public Lands Generates Concern** (Oct 1st)
Directed by the Governor's Office, the Bureau of Parks and Lands is planning to increase the annual harvest by nearly 30 percent between now and 2015. Although administrators are confident they can do so without long-term impact to the forest, the plan has sparked concern among environmental groups.
— *MPBN*
- **New Forest Products Study Shows Industry is Far from Dying, Advocates Say** (Oct 13th)
Maine's forest products industry contributes approximately \$8B to the state economy, including over 38,000 jobs, according to a new study released this week by the Maine Forest Products Council.
— *Bangor Daily News*
- **Cleaner than Coal? Wood Power Makes a Comeback** (Oct 10th)
Pressure to reduce carbon footprints and increase use of renewables is causing some utilities to start conversion projects to burn wood products instead. But concerns on how to account for carbon emissions have led many to question the benefits.
— *Scientific American*

Industry Overview

Forestland Operations

Upon reflection, 2013 seems to have been a year of extremes. Extreme swings in the stock market, extreme polarity in our political environment; and certainly extreme weather. As I write this many people in the Northeast, including ourselves, are recovering from an ice storm with record freezing. Yet today the thermostats here hit 52 degrees – and we're expected to dip into the single-digits again two days from now. What a roller coaster ride.



Icy cold weather has been dominating the Northeast.

In the forests, the fourth quarter began quite well – the fall rains never really came on strong as they usually do, which was quite a welcome change from this time last year. The woods for the most part remained dry, and to top it off we experienced consistently cold weather that resulted in an early start to our winter season. The normal extended freeze/thaw cycle, which can disrupt operations, ended quickly. One of our foresters remarked that 2013 was the “earliest winter” we had seen in recent memory, which is a good thing when you require well-frozen roads in order to move timber to the markets. This continued through mid-November spanning from the Lake States to Maine, so we had a great start to the quarter, running on all cylinders for 6-7 weeks straight.

However, in the last few weeks in the Northern U.S. it has been very, very cold. One forester recorded a morning temperature of -38 degrees in the Maine woods (which was, according to NASA's rovers, colder than the surface of Mars on the same day). This is a dangerous situation for personnel, and, as you can imagine, can influence almost all of our forestry activities. For one thing, sustained cold can affect equipment: engines start hard, hydraulic problems are much more frequent, steel becomes brittle. Diesel fuel is also cut with kerosene in the wintertime to prevent it from becoming the consistency of Jell-O. With the snow and moreover with the ice, we're also finding ourselves spending more time on our roadwork than we'd like – opening up roads and keeping them open requires plowing and, in many cases, sanding. Truckers have to stop frequently to either take off or put on tire chains in order to keep from slipping on roads full of thick, glare ice – which slows down deliveries to mills.

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Our issues with weather may not be limited to winter: Some of the ice buildup combined with the sudden thaw and refreeze may manifest itself in springtime drainage issues on the roads. We haven't seen much damage yet (partially-obstructed culverts, localized flooding), which is a good sign, but we won't know the full extent of issues until the snow melts in the spring and we can get a good look at the ground. Suffice it to say, we've got 2013 firmly in the rear view mirror and with wood being put up roadside, we're off to a pretty good start for 2014.

At this point, we're pretty much accepting that there is a "new normal" when it comes to fuel costs. We appear to be in a relatively stable period for diesel, with prices more steady than they have been since approximately 2000. This is a double-edged sword – on one hand it's helpful for logging contractors to have the stability and predictability in their cost structure, on the other hand the costs to operate machinery remain quite high.

NUMBER 2 DIESEL FUEL PRICES - NEW ENGLAND 3 YEAR HISTORICAL MONTHLY AVERAGES



Forest Product Markets

Just as the weather affects us, so does it affect our mills. The extreme and inconsistent weather has befuddled wood buyers. The good news is that a few of our major customers have recognized the issue and opened their doors on the weekend in order to extend the timeframe they accept deliveries.

Clearly this helps them manage the inventory a little better, and it gives landowners the flexibility to deliver when they have the staff and road conditions available to do so.

Demand in general has been mixed, with some products cooling off and some products being so strong it has had ripple effects in other markets. However, against the prior quarter, we believe demand in general is slightly higher due to the required inventory build for mud season.

P&C DEMAND INDICATORS

Representing our opinion of market demand for timber products in the Northeastern U.S.

	Current	Outlook
Sawn Products		
Spruce & Fir	■■■■■	■■■■■
Pine Logs	■■■■■	■■■■■
Hardwood Logs	■■■■■	■■■■■
Pulpwood		
Hardwood	■■■■■	■■■■■
Spruce & Fir	■■■■■	■■■■■
Pine & Hemlock	■■■■■	■■■■■
Biomass	■■■■■	■■■■■

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■ **Rival Companies Challenge Aroostook County Wind Project's Power Deal** (Oct 17th)
Allegations of an improper awarding of the wind power contract on Number Nine Mountain has brought scrutiny to a Connecticut-based wind developer and potentially put the project at risk.
— *Hartford Courant*

■ **FAME Approves \$25 Million Loan for Millinocket Pellet Mill** (Oct 13th)
In a split vote, the state's financing authority has voted to provide a loan guarantee to a private equity startup, Thermogen LLC, to create New England's first torrefied wood pellet plant. The investment in commercially untested technology has been suggested by some as too risky for state taxpayers.
— *Bangor Daily News*

■ **Thank Natural Resources for Increase in Canadians' Personal Wealth** (Oct 22nd)
According to a recent Credit Suisse report, a fundamental factor in the rising personal wealth in Canada is due to its abundance of natural resources, including minerals, gas, and forest products.
— *TroyMedia*

■ **Maine Moose Herd 'Robust' While Population Falls Elsewhere** (Oct 30th)
Biologists say that while populations in other North American regions are on the decline – a fact most often attributed to climate change – Maine's moose population has one of the highest densities thanks to plenty of habitat in the state's commercial forestlands.
— *Portland Press Herald*

When you look at the individual market breakdowns, here's what we've seen in terms of demand:

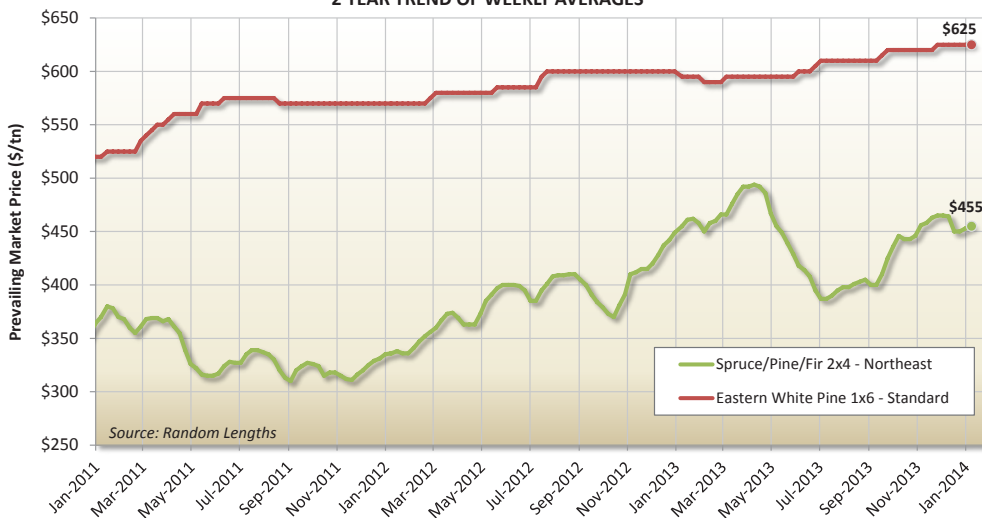
Sawn Products

Softwood

During the winter months we move a substantial portion of our softwood sawlogs, mostly in the form of what we call 'hygrade', which is sent to dimensional lumber markets. This has been quite a dynamic market over the last year or two as optimism in the housing market spreads and global markets come back to life. As tracked by *Random Lengths*, pricing on the mills' finished goods has been moving upward over this period but not without some fairly noticeable volatility (see chart below). We've had a few false-starts but in general, based on what we're hearing mills say and what we're seeing them do, we expect the lumber markets to be sailing quite smoothly absent a significant market shock.

PRICE TRENDS IN SOFTWOOD LUMBER

2 YEAR TREND OF WEEKLY AVERAGES



Housing-related month-on-month leading indicators, such as housing starts, have slowed down in recent months, but we do not believe that to be extremely concerning considering that we're still seeing year-on-year growth. Higher prices on homes appear to be bringing more homeowners back above water, finally allowing pent-up demand to stimulate turnover – and while new construction obviously is more exciting to lumber manufacturers, even the turn of existing homes can stimulate remodeling.

Raw material inventories at a mill are obviously a function of the amount being delivered to the facility and the amount being consumed for production. In general, these inventories at the softwood lumber mills in our region are being drawn down because of increased production. Mills are using more wood in what is a traditionally slower time of year. Because of this increased consumption, we have not seen the recovery in raw material inventories that we usually see in at the start of the new year. Therefore, we do not expect demand for hygrade to abate in the short term.

Furthermore, recently announced plans for a new stud mill in the Ashland, Maine area have us encouraged. Mills in that region have been fortunate over the last few years to be buying wood at a lower than average price because of lack of competition and proximity to the resource. This will increase demand in a region that really needed it.

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■ **Old Town Company Poised to Take Lead in Conversion of Wood to Sugars, Industry Experts Say** (Oct 17th)

A mill traditionally focused on pulp production has been working on producing cellulosic sugars from wood for conversion to biofuels, plastics, and chemicals – which has been getting the attention of green industry groups.

— Bangor Daily News

■ **First Half of 2013 Saw Increased Production of Lumber in the U.S.** (Nov 12th)

All regions in North America have seen a lumber production increase of over 35% in the past four years, with the U.S. west coast leading the way. As a result, lumber shipments are currently back up to the same levels as they were in 2008.

— Forest Business Network

■ **The Politics of Logging** (Nov 15th)

Cross-border labor issues with Canada are at the heart of an ongoing political struggle fought in the Maine legislature between those who seek work and those who employ loggers on their land.

— Down East Magazine

■ **Controversial Mining Rules Debated at Heavily-Attended Hearing in Augusta** (Oct 17th)

The Department of Environmental Protection has been working on crafting new rules for re-launching the state's defunct mining industry, which opponents say are too loose to adequately protect the environment. New rules are scheduled to be adopted in January 2014.

— Bangor Daily News



Demand for hemlock logs remains on solid footing. Part of this stability appears to be driven by continued demand of the end products (industrial-grade timbers) and part of it is by a somewhat restricted supply. Hemlock tends to have a higher percentage of pulpwood for any given stem, and without strong demand for the pulpwood, the landowner needs strong financial incentive to produce the logs. Because of this current value relationship between hemlock logs and pulpwood, the market demand for the logs remains elevated and mills often need to provide attractive enough pricing to make it worthwhile for the landowner.

White pine is still enjoying premiums over the pricing in the prior quarter, which is unusual for this time of year. It appears that the future for pine is getting brighter – the finished product pricing continues to rise and the mills have been willing to pay more in order to keep their inventories stocked.

Hardwood

While pricing and demand for hardwood logs have all increased during 2013, none have done so as dramatically as sugar maple (also known as hard maple). Our northern forest from the Lake States to the Northeast has a large abundance of log-quality sugar maple. In northern Maine, for example, approximately 50% of our hardwood log harvest volume is hard maple. With prices for sawn maple lumber on the rise, the species is being sought after by almost every hardwood sawmill in the region. The dominant product we sell – #2 Maple Log (10" 2CF 1/2 heart or better, for those interested) – has increased in value by almost 50% in the last two months. Depending on the region, this has had a large influence on our client's net returns and in some cases we have been able to react to this pricing by the timing of harvests on the lands we manage.

This demand for hard maple has had a shadow effect on the pricing for other species of hardwood logs, particularly when wood is delivered unsorted directly from the woods on a mixed truckload. Soft maple nearly always follows pricing on hard maple, and some pricing on birch has been influenced by this while mills attempt to keep other products competitive in order to draw in the hard maple. When this happens, some mills don't even saw the species they are buying – they simply saw what they want and resell everything else. The market for oak and ash logs has been slowly strengthening in our regions as well – a welcome surprise. We credit an improving state of health in the market for hardwood flooring as well as substantial growth in the U.S. export market.

Pulpwood Products

Softwood Pulpwood

I learned a long time ago that if you can't say anything good about something, don't say it at all – so I suppose I should feel compelled to start with the good news on softwood pulp markets. Happily, we're currently able to sell the softwood pulpwood that we are producing and we're able to sell it at fairly attractive margins.

Pricing for northern softwood kraft pulp (NBSK), which is produced by some mills in our region, is still relatively strong. As reported by industry publication PaperAge, NBSK has risen almost 14% just in the last year (see the green line in the chart on the following page).

Because of this pricing, we've seen some hardwood kraft pulp mills experimenting with a changeover to produce NBSK. Some mills are capable of producing both, and when given the opportunity to run a few shifts producing NBSK, we've seen them take advantage of it.

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■ **Counting New Rings: Transformation, Innovation in Maine's Forest Products Industry** (Nov 28th)

A forest products industry veteran and special advisor to the Governor's office believes that private investments in the state are a sign that we are on the leading edge of a new natural-resource based economy.

— *Portland Press Herald*

■ **NewPage Shutting Down Paper Machine, Laying off Workers** (Nov 19th)

One of three paper machines will be indefinitely idled at the Rumford, Maine facility in an effort to become more efficient and more competitive in the production of printing and specialty papers.

— *Lewiston Sun Journal*

■ **Wisconsin Court: Managed Forest Land Can't be Leased** (Dec 19th)

A state court has ruled that property enrolled in Wisconsin's tax-advantaged Managed Forest Land (MFL) program cannot be in the program if it is leased for recreational use, regardless if it is open to the public or not.

— *TwinCities.com*

■ **New Hampshire Investor in Torrefied Wood Has Drawn More than \$142M in Tax Breaks, State Loan** (Oct 18th)

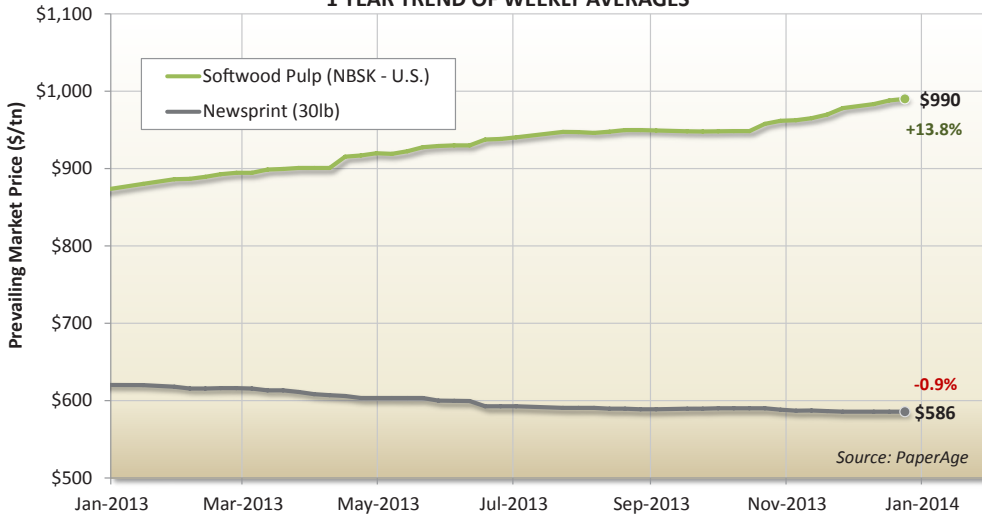
After making deals involving taxpayer dollars at the state, county, and municipal levels, Cate Street Capital has not yet broken ground on its latest project in Millinocket; some believe the technology is too risky.

— *Bangor Daily News*

That said, a large portion of our pulp & paper mills are also consumers of NBSK, and purchase it from the market to augment their own supply. Those that do are looking at this overall trend as an increase in their raw material costs. In particular those producing newsprint & coated papers are seeing their margins continually squeezed.

SOFTWOOD PULP PRICES VS. NEWSPRINT

1 YEAR TREND OF WEEKLY AVERAGES



The hard news is that demand for finished products – printing paper, newsprint, etc. – are all on the decline and nobody really knows where bottom is yet. While we're not privy to the conversation, we can imagine a world where mill owners are making tough decisions on whether or not to run paper machines or possibly entire mills. Over the last two years we've seen regional players reduce capacity, solely based on the end user demand. The truth is that a mill needs to achieve a certain scale in order to make the economics favorable, and this has been a difficult reality for many in that business.

One way to achieve this kind of scale is through a merger of operations, and we've just seen a sizable example of that. Verso and Newpage have been courting for years but it appears they've finally struck a deal that will combine the two companies. We are optimistic that this consolidation will form a stronger entity for purchasing our pulpwood products.

Hardwood Pulpwood

Although the hardwood pulp markets suffer the same structural issues in the softwood markets, demand has stayed fairly strong for hardwood pulp during the quarter, and there is some optimism in the market. Even through the recession, these producers have made substantial capital investments in cost-efficiency, innovations, and in trying out new products through the recession. Historically and on a grander scale, pulpwood products have acted as a counter-balance to sawn products, when one is doing well, the other isn't. They are almost always out of sync, and we are seeing this today.

One dramatic disruption in the Northeast's consumption of hardwood pulpwood was seen at Lincoln Pulp & Paper, in Lincoln, ME. The mill suffered an explosion in their steam boiler; luckily nobody was hurt, but the mill has since idled a large portion of their production capacity as that portion of the mill remains indefinitely shut down. Regionally this doesn't appear to have affected demand – in fact we've seen the opposite. Lincoln has been

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■ **J.D. Irving Gets Exemption on Maine Clear-Cutting Rules** (Nov 27th)
The state's largest landowner has entered an agreement with the state to allow the company to exempt its property from some of the harvesting standards enacted in the Forest Practices Act. Environmental groups believe lack of accountability may endanger the state's forest land.

— *Portland Press Herald*

■ **Living Off The Land** (Sep 16th)
Demand for skilled jobs within sectors of logging, mining and agriculture are expected to greatly outpace the supply of workers through 2020. This is launching several industry-driven campaigns to convince younger workers to receive training and consider natural resource careers.

— *Maclean's Magazine*



purchasing pulp from other mills in the region to continue their manufacturing, and furthermore, there has been some response of increasing consumption elsewhere to fill the gap. The market seems, for now, to have absorbed this sizable loss.

Poplar groundwood has been in demand and we are still seeing a premium over mixed hardwood pulp. This product is used at some mills in the pulping process for certain grades of paper. We're watching it carefully because we could begin to see some mills attempting product substitution if poplar gets too expensive.

Biomass

With winter fully upon us, both the production and the consumption of biomass are in full swing. Besides our traditional consumers, such as in the use for industrial heating, we've seen renewed interest in biomass electricity generation. With electricity prices rising, some have seen an opportunity to revive generation plants that have been mothballed for a long time. If these costs stay high, it may once again make economic sense to have stand-alone generation facilities.

Demand for biomass has been increased to some degree by the ongoing shortage of propane and natural gas. Over the last few years with oil prices spiking, many mills invested a lot of capital undergoing natural gas conversions, but now they can't get the supply they had planned on. Many are supplementing that by burning a more traditional fuel such as locally sourced biomass. While we don't know how long the shortage will last, it's likely to have an upward effect on price through the winter.

P&C News

I'll conclude with a bit of sad news that has left a hole in the hearts of many of us at P&C. Two weeks ago we suddenly lost a good-natured, dedicated and hard-working employee of ours, Lucien Dube. Lucien was a truck driver at P&C for over 17 years, and his loss will be felt for a long time to come. Our thoughts are with his family.

Benjamin D. Carlisle
PRESIDENT

Update on Lake States Timber Prices

The Lake States – Michigan, Minnesota and Wisconsin – is essentially a hardwood region, particularly Michigan and Wisconsin where hardwood timber types comprise about 75% of the total forest area. This update is focused on hardwood prices for pulpwood and sawtimber, with an emphasis on hard maple. Hard maple is the most valuable sawtimber species in the region and accounts for about one-third of the sawtimber harvest among the higher quality species.

In 2013 Lake States pulpwood prices continued their long climb upward after falling from the 2005-06 peak (Figure 1). Part of the rise during the Great Recession was a consequence of the slowdown in sawlog harvest during that period. With sawlog prices low (or at least lower than they had been), private landowners refrained from harvesting, which diminished the flow of pulpwood. Pulpwood prices rose despite a reduction in both pulping capacity and capacity utilization.

Prentiss & Carlisle stopped publishing delivered wood prices in the Lake States in 2012, but there is no reason to believe the long-observed correlation between stumpage and delivered prices has changed (Figure 1).

However, the slopes of the respective trend lines clearly indicate that the cost of wood itself is becoming a less important determinant of delivered prices. Harvest and transportation costs, heavily influenced by fuel prices, have been rising faster than stumpage. The takeaway for investors: properties located near the market on good operating ground should expect to receive a premium stumpage price.

The region continues to have some of the priciest hardwood stumpage in the US; the average hardwood pulpwood stumpage price across the South in the third quarter was about \$26 per cord (Timber Mart South, <http://www.tmart-south.com/>), compared to nearly \$40 in Wisconsin and Michigan.

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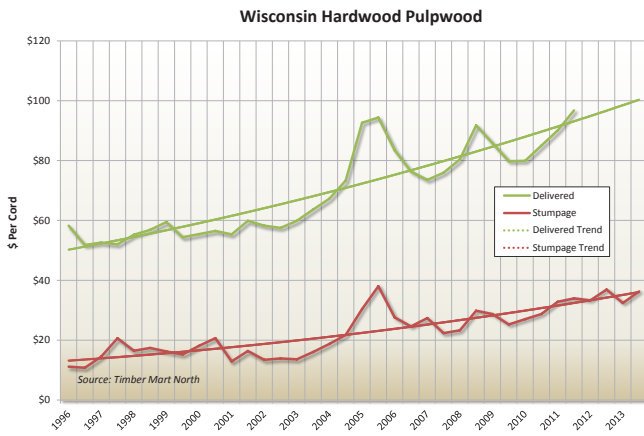


Figure 1

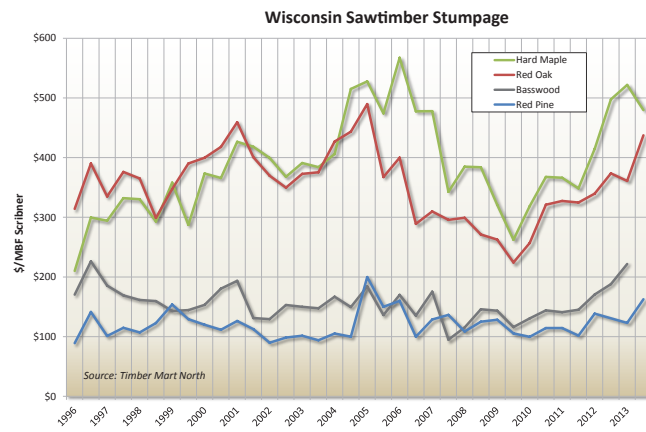


Figure 2

The long history of hardwood species preferences for flooring and furniture has been a tug of war between lighter and darker colored species. Typically this has been thought of as a 15-year cycle where heavier grained darker species would hold supreme, only to have consumer tastes switch to whiter fine grained species. Hard maple is in the latter category, and it has established clear pricing dominance over the last ten years (Figure 2). In the past year, however, maple prices dropped sharply while red oak prices rose, narrowing the price gap considerably. Over the next few years it will be interesting to observe whether this is the beginning of the end of the classic 15-year cycle.

Although hard maple prices have regained much of the ground lost after the 2006 peak, in inflation-adjusted terms they are still at a mid-1999 level (Figure 3). Long-term timber price forecasters frequently talk of a “return to trend”. In order for today’s hard maple price to return to its 2006 peak, it will require annual real increases of just over 1% per year for 15 years. Combined with a 2.5% general inflation rate, that would indicate nominal stumpage prices in 2028 of about \$820 per MBF!

Balance between lumber prices and stumpage prices was restored somewhat in 2013, with the gap between the lumber price index and the stumpage price index narrowing some (Figure 4).

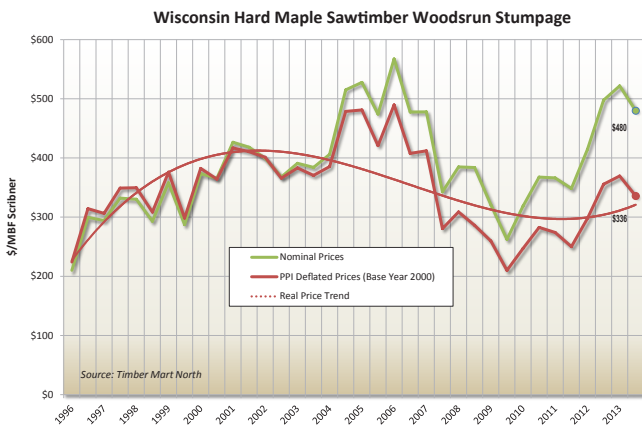


Figure 3

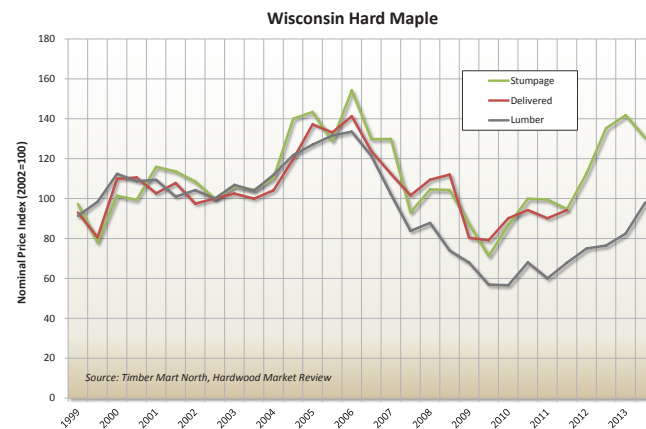


Figure 4

Manufacturing capacity utilization for US forest products remained historically low in 2013 (Figure 5), although utilization for wood products companies remained on an upward trajectory, thanks to the slow but steady housing recovery. Paper capacity utilization rates have been able to stay above 80% only by global elimination of excess capacity, including in the Lake States. For wood products industries, and particularly for hardwood lumber, that is more difficult to implement because of the fragmentation and small plant scale in the industry. One of the reasons for the strong pricing in the Lake

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States is the region's large acreage of public forests. The three states combined have 40% of their forest area in public ownership, primarily federal and state but also county forests. Because public agencies, particularly the national forests, under-harvest relative to sustainable yields, timber supply per acre of forestland is relatively low.

Tight supply combined with strong competition among timber buyers leads to prices that sometimes seem out of touch with production economics. Loggers and manufacturing companies may be able to survive this in the short term, but in the long term they cannot continue to endure the region's high resource costs and expect to be competitive in global markets.

The source of these price trends is our timber price survey, Timber Mart North. Please see our website for a sample issue and subscription form: <http://www.timbermartnorth.com/>

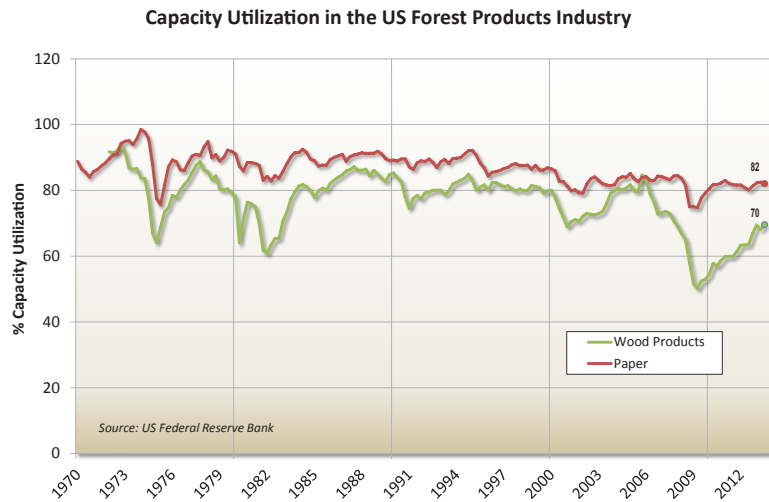


Figure 5

Sam Radcliffe
VICE PRESIDENT

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