



Industry News

■ **New owner of Rumford paper mill will retain workers, eyes investment**
(Jul. 2nd)

ND Paper LLC, a wholly-owned subsidiary of Nine Dragons Paper Ltd., completed its acquisition of Catalyst Paper Corp.'s mills in Rumford, ME and Biron, WI. The Rumford mill, which employs about 620 people, will now be known as ND Paper - Rumford Mill. A company spokesman said there would be no layoffs, adding that ND Paper planned to make investments to improve the mills' capabilities.

— *MaineBiz*

■ **Biomass plants shut down after Gov. Sununu's veto of subsidy**
(Jul. 4th)

Biomass plants in Bethlehem and Tamworth are winding down operations - at least temporarily - after the governor vetoed a bill that would have provided financial subsidies. Gov. Chris Sununu's office said that veto will save electric customers \$30 million a year. Wood chip suppliers serving the biomass industry say the veto will send ripples through the economy.

— *NewHampshire.com*

Industry Overview



A log truck kicks up dust while transporting a load of hardwood in northern Maine.

Forestland Operations

Looking in the rear view mirror, the northeastern U.S. has had very few obstacles getting wood delivered - markets have been relatively stable, and weather conditions have permitted steady timber operations. With good winter production and a short spring wet season, we came into the summer operating period with a good degree of momentum. There was a lot of work to be done; mills were hungry for timber and the forest was in solid shape.

Each year, foresters begin the summer by prioritizing their planned harvests by the condition of the soils present, with the assumption that spring will be wet, summer will be dry, and the rains will return in the fall. This is done to avoid rutting and minimize the environmental impacts of harvesting. Some years we get lucky with weather that stays dry all the way through, and it turns out this was

one of those years. While there was a good amount of heat and humidity, there was not much sustained rain. For those that planned well, the weather supported excellent logging conditions and high production region-wide, from early June all the way through September.

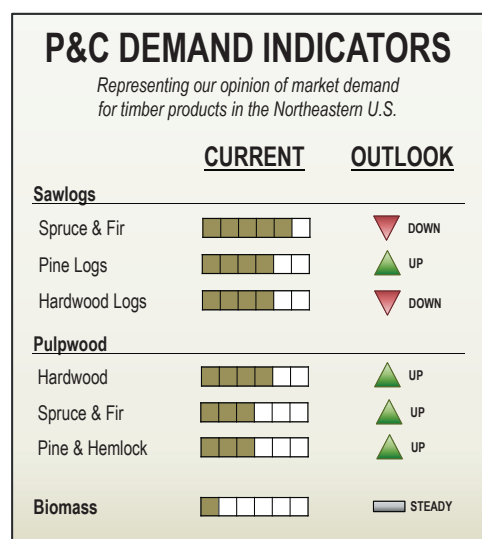
Now, at the end of September, things will start getting soggy in the woods. Trees will end their summer growing cycle and stop absorbing groundwater and the ground won't dry as quickly. Additionally, as the days get shorter, the sun begins to lose its strength and natural evaporation slows down. This will introduce its usual complications into the flow of timber to the markets.

One longer term complication that is starting to affect the regional timber supply chain is the shortage of trucking capacity. Along with challenges coming from rising transportation costs, the robust economy has pulled

some forest products truckers into other industries, and logging contractors are having a hard time finding qualified drivers for their log trucks. As a result, it is getting more difficult to hire trucking when and where it is needed for the timely and efficient delivery of forest products. We are always reviewing the rates we pay our contractors, but these problems are placing most of our attention on trucking rates. Ultimately, it would be reasonable to expect costs to rise if this problem persists.

Forest Products Markets

Overall this quarter, we have been enjoying relative stability in the markets, partly due to growth in the economy and good management at the mills, but also due to robust demand for end products. With harvest operations region wide working under favorable weather conditions, the timber inventories at our regional sawmills are generally high. About mid-summer there was a noticeable “brake check”, a momentary reduction in wood purchases driven by the concern of having excess wood supply. However, for the most part consumption at mills has kept pace with deliveries, and at this point everyone is back on the throttle. Inventories remain high, but that has not led to mills calling for less wood -- in fact, at this point we expect mills to keep purchasing wood to sustain their inventories through the fall rains.



Pulpwood Products

Demand for hardwood pulpwood started out the summer at typical levels, however appeared to increase through the 2nd and 3rd quarters. Mid-summer we saw several small upward adjustments on the prices pulpmills were willing to pay for wood, as each tried to capture a larger portion of the market. We take that as a sign of overall health in regional demand and strong end markets for the products pulpmills are producing.

It's likely that part of the reason for stronger end markets is the conversion to higher value products by several regional pulpmills. Historically, mills in the Northeast produced either newsprint or printing papers. But today, most mills have worked hard to diversify their product offerings to produce more technical and specialized products, reducing their reliance on declining low margin products. They are still running paper machines, but these machines are tooled very differently than they were even just 6-8 years ago. This has breathed new life into the industry as a whole.

That's not the only change afoot in the regional pulpwood markets; significant new capital has been employed at several of large facilities. For example, the recently announced plans at Verso's Androscoggin mill to produce packaging boxboard with softwood pulp is now reality. It's quite a turn around for this facility, which just 13 months ago announced a permanent shutdown of a whole paper machine (see timeline on next page). New capital and a commitment to produce higher value products has enabled this machine to start up once again. The Sappi mill in Skowhegan has also finished a major efficiency upgrade to remove bottlenecks in their manufacturing process and increase roundwood consumption. Another major mill in Rumford, Maine has been purchased by Nine Dragons, a Chinese paper company, and it appears they are poised for upgrades to that facility to make it more competitive.

Raw material inventories at the regional pulp mills are at comfortable levels,



■ **Truck driver shortage could reach crisis levels for wood products** (Jul. 9th)

Driver shortage topped the list of critical issues facing the industry for the first time since 2006. The industry was around 51,000 drivers short in 2017 - up from 36,000 in 2016 - and that number is projected to increase to a whopping 174,000 by 2026.

— Woodworking Network

■ **Verso announces upgrades at Jay mill, focus on specialty papers** (Jul. 18th)

Verso Corp.'s mill in Jay currently produces a mix of coated paper, uncoated paper, and specialty paper often used for labels and packaging. Upgrades will be made to the mill's No. 4 paper machine, which produces release liner paper, a specialty paper that includes a release agent on one side, such as with stickers or adhesive bandages. The upgrades will allow the mill to increase capacity of release liner paper and tap into a growing market.

— CentralMaine.com

■ **New York gives up the fight, lifts ash quarantine** (Jul. 30th)

New York's Department of Environmental Conservation (DEC) has given up in fighting the Emerald Ash Borer, as it has lifted quarantines. The DEC repealed logging restrictions that had failed to contain the spread of the insect by limiting shipments of ash. Regulations are no longer serving the purpose of slowing the spread of Emerald Ash Borer or allowing time for municipal governments to plan for the arrival of Emerald Ash Borer.

— Woodworking Industry News

Verso Corp's Androscoggin Mill Timeline

July 2016	Verso Corp. Emerges from Bankruptcy
November 2016	Temporary shutdown of paper machine PM3
July 2017	Permanent shutdown of PM3
February 2018	Announces planned restart of PM3 using softwood pulp
August 2018	Production begins on retooled PM3

although this time of year almost always brings with it a natural nervousness about the ability to sustain the flow of wood into the mills. From now until the time winter's freeze sets in, the uncertainty of the weather has mills particularly worried –and for good reason. Two or three days of steady rain in the fall can lead to a week or two of recovery in wood flow. With pulp mills operating at high consumption levels, it doesn't take long before their supply starts to diminish.

Sawn Products

Softwood Sawstock

It's been a roller-coaster year for dimension lumber. After a long run-up in the past few years, mid-summer of this year lumber prices hit an all-time pricing peak, driven by shortages, economic activity, trade matters, and speculation. Since then, we've seen a fairly abrupt correction; pricing has now fallen back at the same levels it was a year ago. Given the swift price decline in lumber,

the prices our regional mills are paying for timber are under pressure as well. Overall, we are cautious about landowners being able to maintain stumpage rates for spruce & fir for the upcoming quarter.

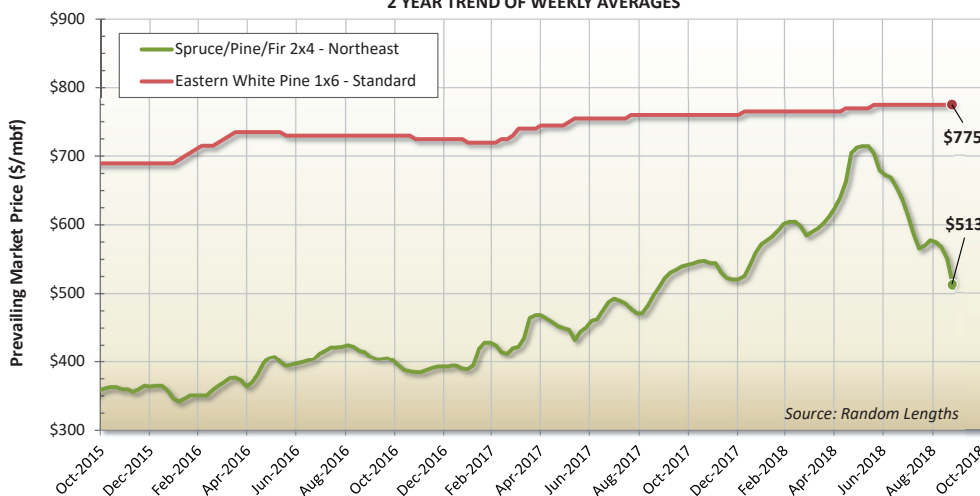
Recovery at our pulp mills - particularly a regional increase in consumption of softwood - has helped alleviate the overabundance of sawmill residuals such as chips, shavings, and sawdust. Disposing of these byproducts regularly and profitably had presented a real challenge to sawmills.

The trade dispute between the United States and Canada regarding softwood lumber remains relatively quiet, although it is coloring various parts of the active NAFTA negotiations. The U.S. manufacturers are claiming that Canadian lumber is subsidized, and therefore deserves import protections. Here in the northeast, because much of our available wood supply is dependent on a string of Canadian sawmills just over the border, the situation is much more nuanced. Most Quebec border mills have been able to demonstrate their wood supply is not subsidized, and it is disheartening to see that this fact appears to be lost in the larger dispute. We don't expect any agreement to be worked out in the near term, although we're hopeful the two countries make progress when the NAFTA negotiations finalize.

Market demand for pine logs continues to be steady, boosted by good demand and

PRICE TRENDS IN SOFTWOOD LUMBER

2 YEAR TREND OF WEEKLY AVERAGES



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■ **Papers caught up in trade war see tariffs pushing them off cliff** (Aug. 6th)

Newspapers in the U.S. are caught up in the fine print of President Donald Trump's trade war, as less attention-grabbing tariffs on paper imports squeeze margins at struggling media outlets. The U.S. Commerce Department contributed to the surge in newsprint prices this year when it slapped duties as high as 22 percent on imports of Canadian uncoated groundwood paper.

— Bangor Daily News

■ **Maibec sells Masardis, St. Pamphile mills to another Quebec company** (Aug. 7th)

The Maibec lumber mill in Masardis, Aroostook County's largest sawmill, and their St. Pamphile mill, have been sold to a new owner, Groupe Label of Riviere-du-Loup, Quebec. The 315 employees at the Masardis and St. Pamphile mills will maintain their employment with Groupe Label. Maibec officials said they sold the mills to focus on the company's exterior siding products.

— Bangor Daily News

■ **Biomass power plants backed by tax money haven't run in four months** (Aug. 7th)

Two wood-to-energy plants getting taxpayer cash to support Maine forestry jobs have been out of operation since the end of March, dramatically cutting employment at the facilities as the plants enter month five of the outage. The outages at Stored Solar's West Enfield and Jonesboro plants have continued after managers at the company in April attributed the shutdowns to an early mud season.

— Bangor Daily News

pricing for the finished lumber. Inventories at the mills are generally at a low point this time of year, but with temperatures and humidity falling, mills don't have to worry as much about their exposure to product spoilage. We're expecting pine demand to increase as is typical for the season.

Cedar is a different story. Cedar mills had unusually high inventories at the end of spring region-wide, in part because of the excellent logging conditions during the prior winter. In addition, the unusually dry summer enabled landowners to access cedar stands that are usually off limits because of wet ground conditions. Therefore, deliveries of cedar logs were higher than average this summer. Almost simultaneously, the market for the major cedar sawn products (clapboards, shingles, fencing, decking) started to decline and it has continued to slow through the summer. As a result, mill inventories have swelled

and they have become very tentative about purchasing logs. The good news is that cedar is a very durable product in log form and takes a long time to degrade in quality. However, this could complicate our plans for the coming winter harvests, which is when we usually harvest the majority of our cedar.

Hardwood Logs

For the better part of the summer, our regional hardwood sawmills have been walking that thin line between maintaining production and limiting deliveries to prevent spoiling, with one foot on each pedal. It is a delicate push-pull, but generally strong demand for hardwood sawn products kept the mills busy and the wood flowing. While demand for hardwood logs saw volatility through the quarter as mills actively managed their inventories, prices for most products are steady or slightly up. Now that the weather is turning colder, mills



■ \$5.3 million grant to help revitalize Katahdin region mill site (Sept. 28th)

A nonprofit volunteer economic development group has secured a \$5.3 million federal grant to help eventually create 115 jobs and spur \$205 million in investment at a former paper mill in Millinocket.

The U.S. Department of Commerce reimbursements will help Our Katahdin rebuild infrastructure vital to drawing businesses to the Katahdin Avenue mill site.

— Bangor Daily News

IN FOCUS: Logger Training Program

This summer marked the completion of the second year of an innovative program offered through Northern Maine Community College to provide formal training to new loggers. As we have discussed many times in this publication, the professional logging force faces tremendous uphill challenges. Thin margins, volatile markets, and tough operating conditions often demand that a logger's attention be focused on meeting timber production targets rather than workforce challenges such as training & recruitment. Moreover the swelling costs to purchase, maintain, and repair equipment has made training on the job less and less realistic. As a result, the industry has many unfilled positions for loggers who are skilled in modern equipment and harvesting techniques, and the workforce is aging as a whole.

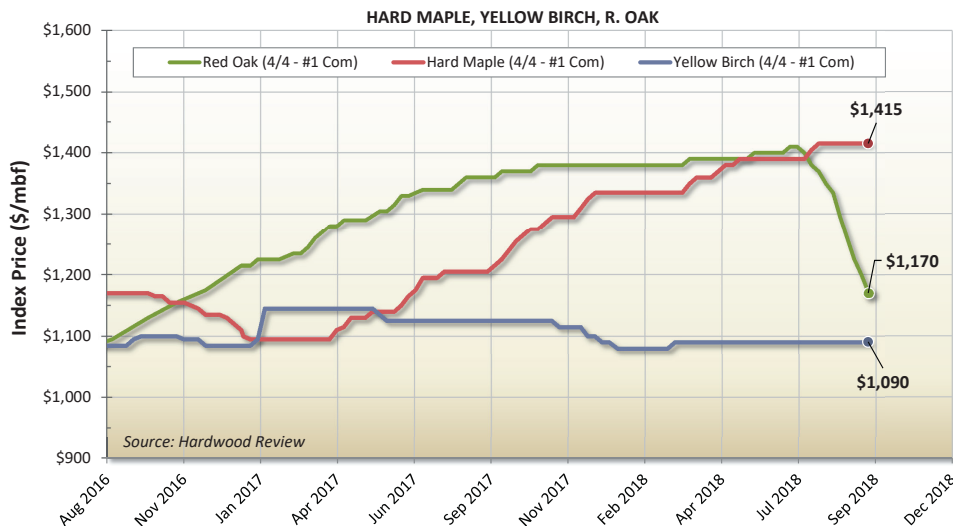
The Mechanized Logging Operations Program (MLOP) was created last year through a partnership between Maine's Community College system and the Professional Logging Contractors of Maine to address the industry's shortage of qualified loggers. Through both formal classroom time and practical hands-on harvesting time using modern equipment, students of the program receive real world training under the direction of experienced loggers and



foresters. P&C is proud to have been one of many sponsors of this program this year by donating the use of our property to run the training operation, donating forester time to help with student guidance, and provide a cash contribution to the program for the value of the wood harvested by the students. Our regional logging workforce is the lifeblood of our industry, and we believe this program represents one piece of the puzzle to addressing it's long-term workforce challenges.

For more information on the MLOP program, see: www.nmcc.edu/industry-customized-training/mechanized-forest-operations/

RECENT PRICES IN HARDWOOD LUMBER - NORTHEAST



will begin to enter a period of replenishing inventory for winter.

The northeast region has just completed its first summer where the entire region is now almost entirely under federal quarantine for the Emerald Ash Borer. This restricts the flow of ash logs to within the quarantine area only, with the goal of limiting or slowing the spread of the invasive insect. The quarantine was expanded to Maine with the confirmed presence of the bug in two areas of the state. Although the effect on demand was small, the delivery restrictions in place this summer did affect the realized margin on ash logs, particularly in those areas where ash normally flows outside the quarantine zone.

It seems that no product is immune to getting caught up in the U.S. / China trade war these days, and hardwood forest products are no exception. After the latest round of U.S. tariffs, China has responded with retaliatory tariffs on U.S. hardwood logs and hardwood lumber. Still very hungry for the wood, Chinese timber consumers are on the hunt for an alternative supply from other countries. Domestically, this trade issue has affected the high-value products in particular, such as veneer quality logs and some of the higher-grade oak sawlogs. As a result of this erosion in the export markets, local markets for oak logs have dropped their prices and demand

has fallen off. There is a chance that this will have ripple effects into other species and into the lower-grade sawlogs as well. To date, demand for hard maple, a staple product of the northeast, does not appear to be affected.

Biomass

There was very little if any consumption of biomass material at our regional pulp mills this quarter, despite all the recent political attention it has received. That said, the handful of stand-alone generation plants in our region are still producing electricity with the material. Most of the feedstock is coming in the form of residual products from sawmills, who are glad to have an outlet for their byproducts. Although there is a small amount still coming from the woods as an occasional byproduct of harvest operations, that only happens when it is financially feasible and depends almost solely on how close the material is to the consuming facility. For the foreseeable future, landowners should expect to extract only marginal value out of delivering biomass, except to clean up woodyards and maximize aesthetics. 🌲

Benjamin D. Carlisle
PRESIDENT



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■ **Maine woods products industry announces goal to increase value to \$12 billion by 2025** (Sept. 25th)

Representatives from Maine's wood products industry unveiled their plan to grow the state's forest economy by more than \$3 billion over the next seven years. The Forest Opportunity Roadmap is an ambitious plan that relies on innovation and technology. The plan is to maximize existing resources and add new technologies and products.

— Mainepublic.org

■ **Sappi completes \$200M investment at Somerset Mill in Skowhegan** (Sept. 27th)

Sappi unveiled its newly rebuilt Paper Machine 1 at the Somerset Mill in Skowhegan, a yearlong project that completes a \$200 million investment that is expected to boost its global competitiveness and increase the mill's annual production capacity by almost 1 million tons per year. In addition to the rebuilt paper machine, Sappi's investment included \$25 million in improvements at the mill's wood yard to optimize its efficiency and reduce costs.

— Mainebiz.biz

Retail Timberland Prices Continue to Slide in Wisconsin

by Sam Radcliffe, Vice President

The timberland market in Wisconsin is monitored by the USDA's National Agricultural Statistics Service (NASS)^[1]. Each year the agency publishes data on forest and agricultural land sales including number of sales, acres sold, and average prices. The NASS data relate to the "retail" timberland market, i.e. sales of smaller tracts (generally 40-640 acres). This is differentiated from the "wholesale" or "investment grade" market in which the participants are professional investors (including TIMO's and REIT's) and the minimum property size is about 5,000 acres. The retail market is dominated by nonindustrial owners (NIPF's) as sellers and buyers, although TIMO's and REIT's often sell into the retail market as at least part of their investment strategy.

Wisconsin is a heavily rural state that is a mix of farm and forest land, with the forest concentrated in the central and northern parts of the state (Figure 1). Southwestern Wisconsin does contain considerable woodland mixed with agriculture, but intensive

industrial forestry is less prevalent. The eastern and southeastern parts of the state are not only concentrated with agricultural land, they are home to the urban centers that contain the great majority of the state's population. Western Wisconsin is also near the large population of the Minneapolis-

St. Paul metropolitan area. NASS's most recent data on timberland sales were just released. In 2017 there was a significant jump in timberland acres sold, but a continuation of the recent trend in prices (Figure 2). Although nominal prices over the past twelve years have been only slightly declining,

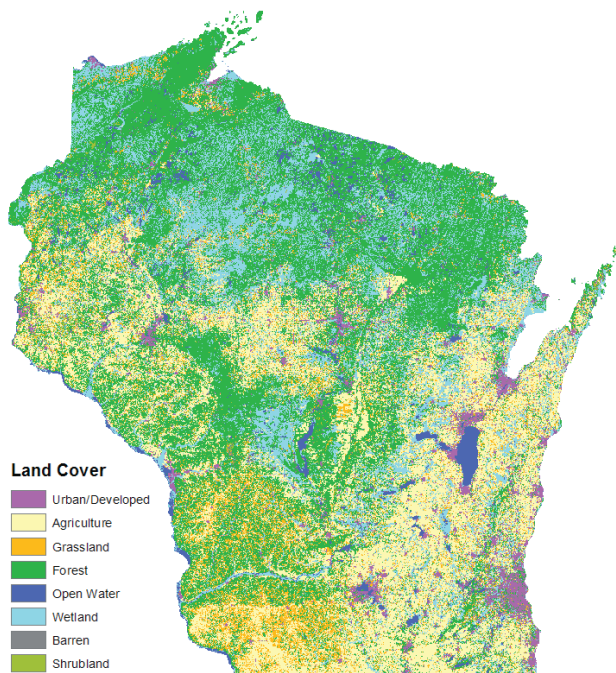
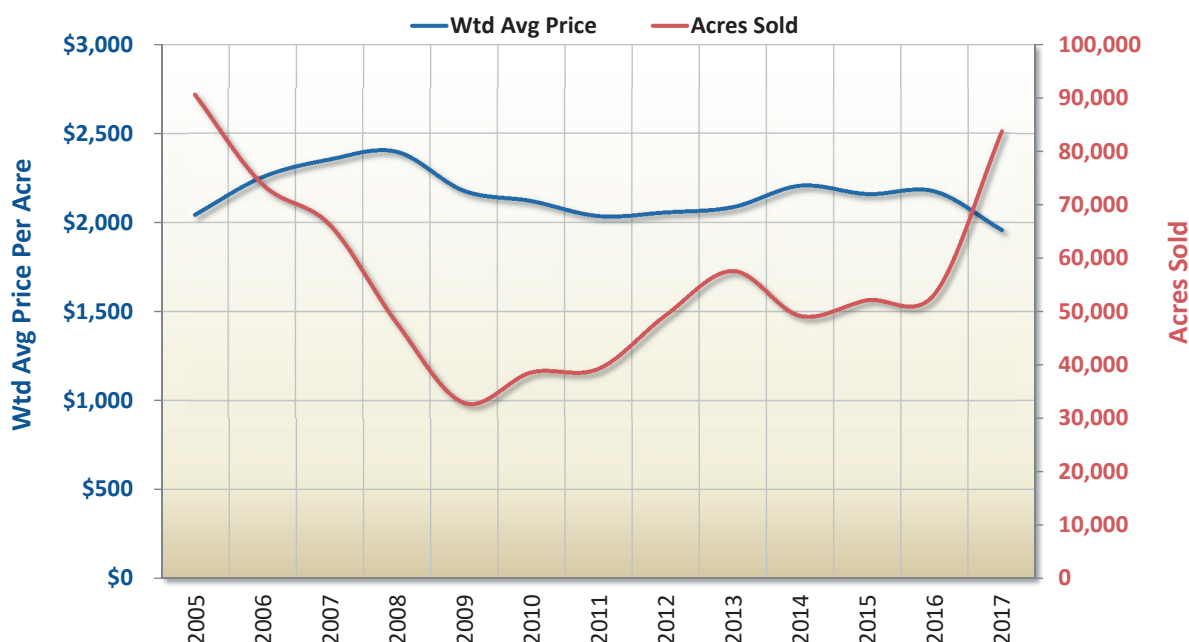


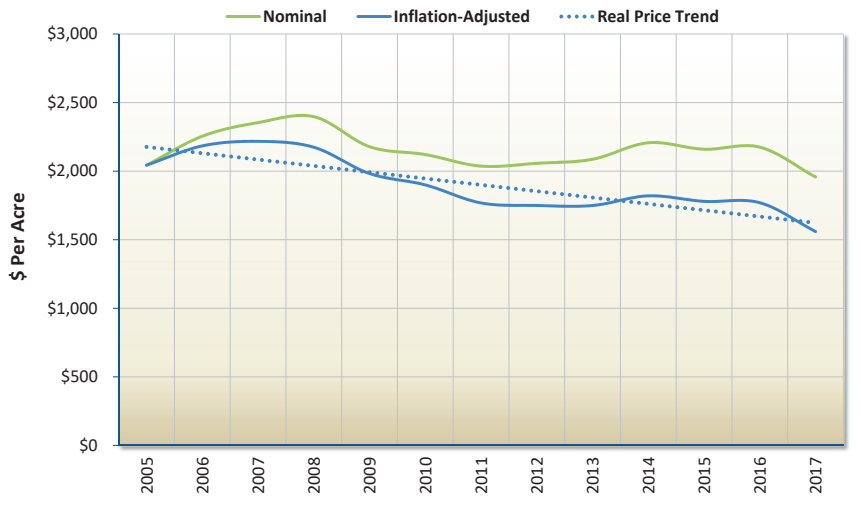
Figure 1. Wisconsin Land Cover Source: State Cartographer's Office



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Figure 3. Nominal and Inflation-Adjusted Price Trends for Retail Timberland in Northern Wisconsin.



adjusting for inflation reveals a more pronounced drop, approximately 25 percent over the period (Figure 3 on next page).

Average timberland prices for those counties above the “timber line” are shown in Figure 4. By comparison with Figure 1 it can be readily seen that the highest prices are received in areas where there is (a) a significant

agricultural mix; (b) proximity to population centers, or; (c) a relatively high concentration of inland lakes. Prices in the true industrial timberland area (called “up north” by Wisconsin natives) and without these attributes are the lowest in the state.

Figure 4 also shows the 2017 change from the average price in the previous five years. Again the largest and most

frequent price declines were “up north”, especially in the northeast part of the state. Figure 5 shows that the biggest price declines were generally in counties with the greatest trading volume.

Timberland prices have a decidedly different trajectory than prices for farmland or housing in Wisconsin. Figure 6 shows inflation-adjusted price trends for the three property types. The housing data are from the Wisconsin REALTORS® Association^[2] for the rural northern part of the state, where the market is less dynamic than the urban areas in the south. The farmland data are from NASS and cover the entire state; most of the farmland in Wisconsin is in the southeastern third of the state (Figure 1). Both housing and farmland prices are on increasing trends; housing prices have nearly recovered to their pre-recession level, while prices for agricultural lands seem to have never really dipped.

It seems as though farmland and housing have benefitted from the

Figure 4. Pattern of Per Acre Forest Land Sale Prices among Wisconsin Counties 2017, and Percentage Change from 2012-16 Average Price (Source: NASS).

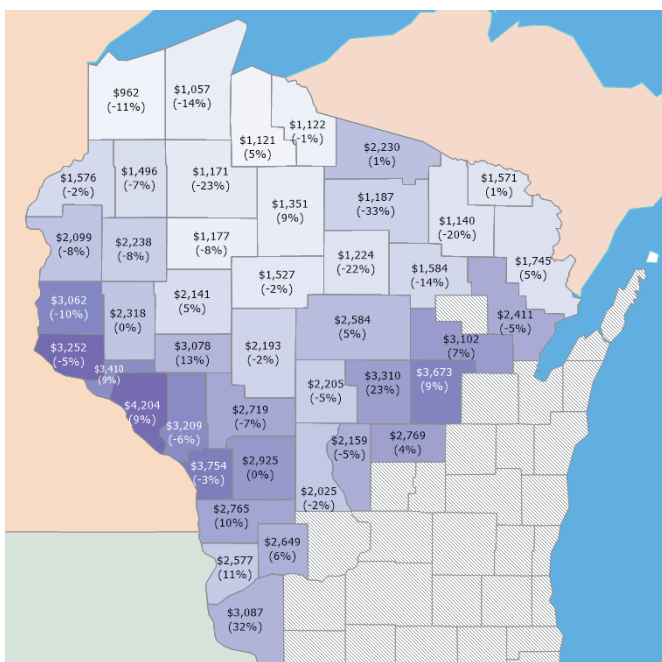
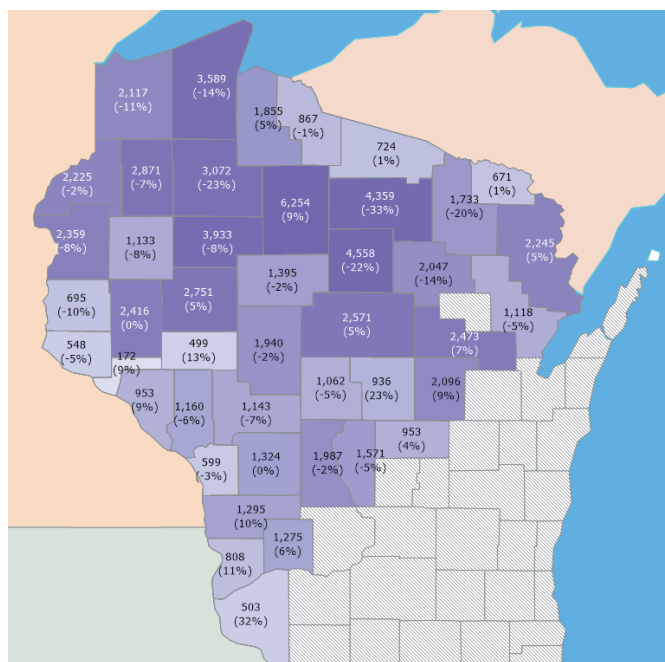


Figure 5. Acres of Timberland Sold in 2017, and Percentage Change from 2012-16 Average Price by Wisconsin County (Source: NASS).



improved economy in the last several years. What is it that keeps timberland prices down? Although timber prices have been declining, this has never been a prime motivator of retail timberland ownership. Two explanations come to mind: (1) In last quarter's newsletter, we examined the demographics and financial position of timberland owners and concluded that many baby boomer retirees will have to sell their timberland to finance retirement. This

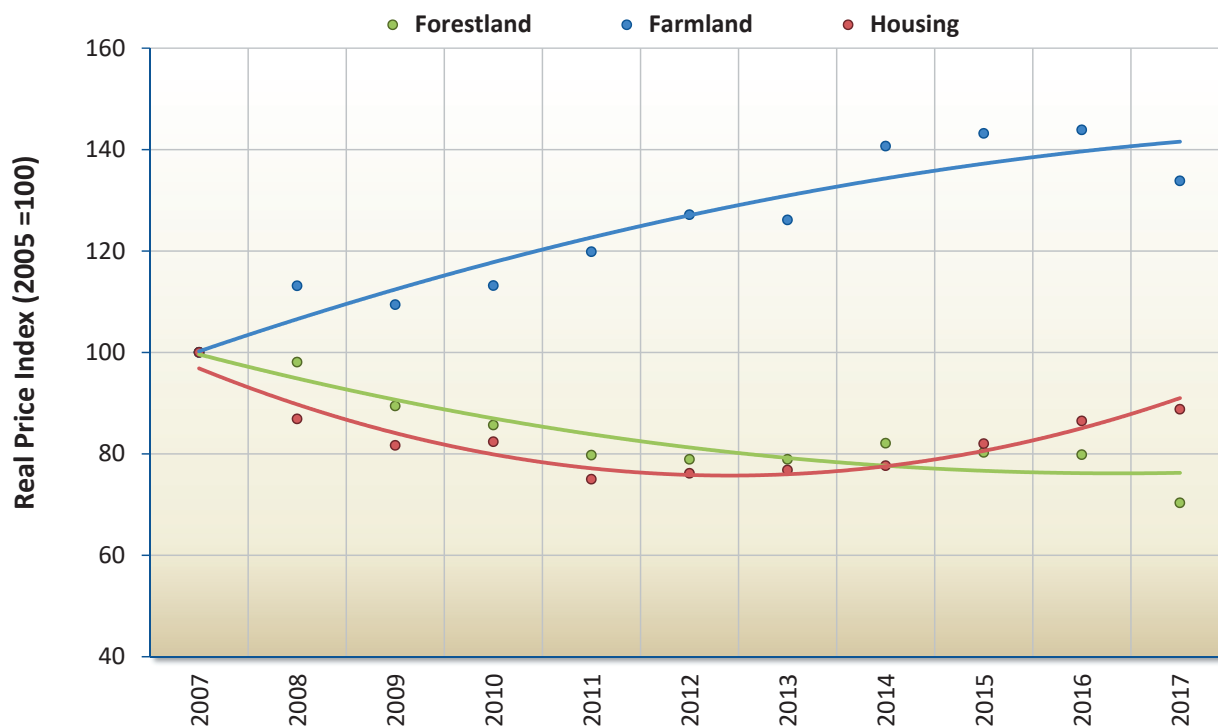
will be a difficult sale to Gen X and Millennial generations who have not yet made the commitment to owning even their primary homes. In that scenario, falling prices are unavoidable; (2) In Wisconsin, several TIMO's have been expanding retail sales as part of their investment strategies. Having paid wholesale prices and facing increasing pressure for investment returns, these sellers are likely more willing to accept a lower than average retail price. The

geography of Figure 5 supports this reasoning, as the heavy trade volume counties have significant TIMO ownership. It may be that this TIMO strategy is flooding the market and contributing to falling prices.

Technical securities analysts interpret high volume on falling prices to be a bearish sign that prices will continue to fall. It will be interesting to see whether this analysis holds for the Wisconsin timberland market. 🌲



Figure 6. Inflation-Adjusted Price Trends for Three Types of Real Property in Wisconsin.



[1] United States Department of Agriculture, National Agricultural Statistics "Land Sales" https://www.nass.usda.gov/Statistics_by_State/Wisconsin/Publications/Land_Sales/index.php

[2] Wisconsin REALTORS® Association, "Wisconsin Housing Statistics" https://www.wra.org/Resources/Property/Wisconsin_Housing_statistics/

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