MISSOURI TIMBER PRICE TRENDS

Oct.-Dec., 2012, Vol. 22 No. 4
Missouri Department of Conservation, Forestry Division

North Stumpage Prices- (Prices and volume reported in Doyle MBF scale)

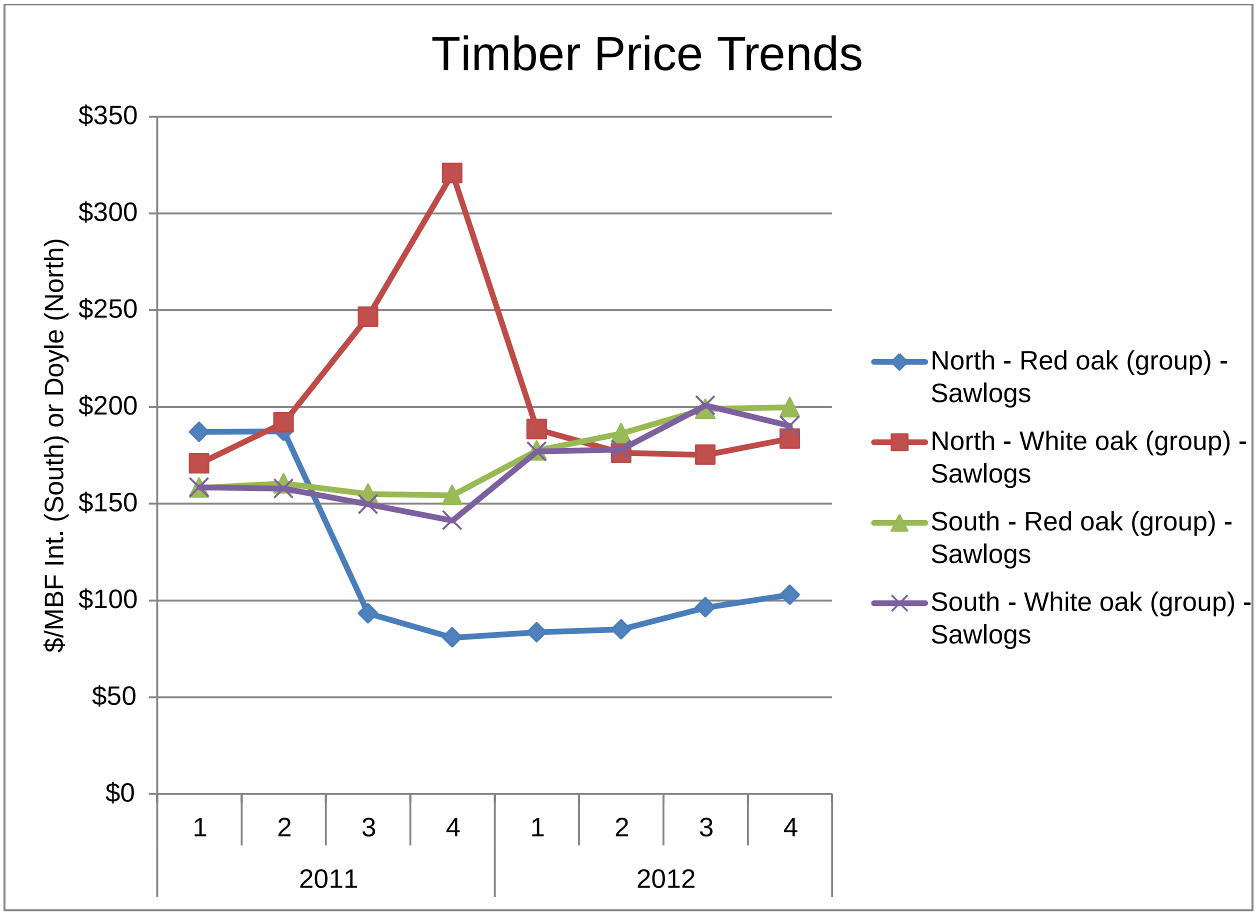
	High	Low	Avg.	Last Qtr.	Last Yr.	Vol.		# of Rpts.
Veneer								
Walnut, Black	$5,300	$1,050	$2,445	$2,445	$2,025	38	Doyle-MBF	9
Sawlogs								
Cottonwood	$70	$50	$55	-	-	268	Doyle-MBF	3
Hackberry	$80	$80	$80	-	-	18	Doyle-MBF	3
Hickory	$220	$30	$85	$85	-	125	Doyle-MBF	11
Mixed Hardwoods	$315	$40	$125	$85	$65	1,267	Doyle-MBF	32
Oak (mixed species)	$310	$60	$145	$140	$120	1,239	Doyle-MBF	17
Post Oak	$215	$60	$110	$70	-	22	Doyle-MBF	5
Red oak (group)	$600	$35	$105	$100	$80	2,333	Doyle-MBF	21
Soft Maple	$210	$50	$155	$200	$275	391	Doyle-MBF	6
Walnut, Black	$1,250	$400	$775	$745	$785	159	Doyle-MBF	20
White oak (group)	$800	$150	$185	$185	$320	2,891	Doyle-MBF	25
Stave Logs								
White oak (group)	$500	$150	$280	-	$205	42	Doyle-MBF	3

South Stumpage Prices- (Prices and volume reported in International ¼ MBF scale)

	High	Low	Avg.	Last Qtr.	Last Yr.	Vol.		# of Rpts.
Sawlogs								
Hickory	$260	$60	$160	$165	$85	255	Int. - MBF	17
Mixed Hardwoods	$365	$50	$215	$190	$210	679	Int. - MBF	14
Oak (mixed species)	$250	$60	$145	$125	$140	2,800	Int. - MBF	24
Post Oak	$120	$70	$85	$90	$115	42	Int. - MBF	8
Red oak (group)	$260	$110	$200	$200	$155	4,152	Int. - MBF	18
Shortleaf Pine	$260	$50	$155	$165	$55	163	Int. - MBF	12
Walnut, Black	$890	$85	$570	$225	-	37	Int. - MBF	7
White oak (group)	$260	$110	$190	$180	$140	780	Int. - MBF	21

South Salvage Prices- (Prices and volume reported in International ¼ MBF scale)

	High	Low	Avg.	Vol.		# of Rpts.
Sawlogs						
Oak (mixed species)	$150	$42	$111	1422	Int. - MBF	4



Published timber prices are based on a rolling average of reports received over the last four quarters. Refer to the column headed ñ# of Rpts.ò to get (ñ# of Rpts. ... the number of sales including a particular species and may sum to more than the number of sales.) Changes since last quarter and last year should be read with caution as the number of reports varies each year and quarter. This report can only be used as a general guide for determining market value of timber. General market and economic conditions, as well as local considerations such as accessibility, terrain, sale size, and tree size and quality also affect the price paid.

Please see the map on page 7 for a definition of reporting regions, which have changed.

- All prices and volumes are reported in either International Scale or Doyle MBF, depending on the region of the state.
- To convert volume from Int.-MBF to Doyle MBF, divide by 1.2. To convert prices from Int.-MBF to Doyle MBF, multiply by 1.2.
- To convert from MBF to BF (prices or volume), divide by 1,000.

Foresters reported stumpage prices resulting from 97 timber sales containing 123,370 MBF located throughout the state. There were 60 reports from Private lands and 37 reports from MDC lands. There were 69 reports from MDC foresters, 27 reports from Consultant foresters and 1 report from other foresters. We would particularly like to thank these Consulting Foresters: John Fleming, Art Suchland, Chris Lohmann, Doug Enyart, Ron Lumb, Frank Meyers, Eric Yarnell, Lynn Barnickol, Jason Deschu, Mr. Jenkins and Shelby Jones.

Prices included in this report are reported by foresters for either private land or stateland (MDC) timber sales. Timber prices received for timber sales on Mark Twain National Forest (USFS) can be obtained at the following website: http://www.fs.fed.us/forestmanagement/products/sold-harvest/cut-sold.shtml

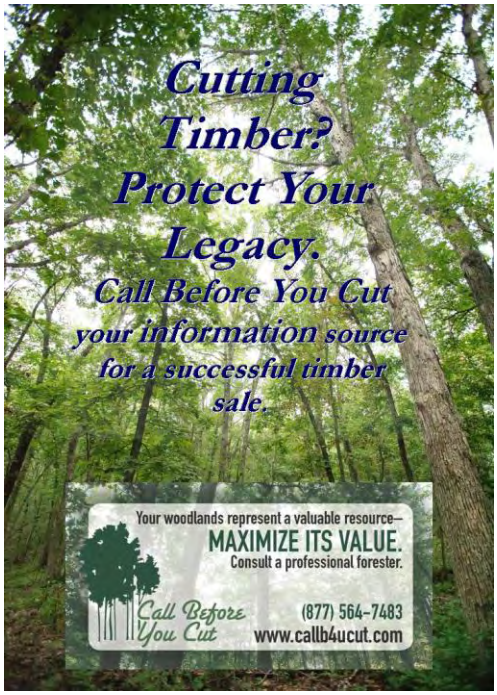
Editorôs Note:
Weôve made some changes to improve the report for landowners, foresters, and members of the forest products industry. Due to a slow economy, and the voluntary nature of timber sale reporting in Missouri, the number of reports we receive has fallen off in recent years. The result is that some average prices were based on very few reports. Due to these issues, we began calculating average prices based on a rolling dataset of all reports from the past 12 months. The oldest quarterly report drops out as the new quarterly report comes in. This should provide more reports to back up each average price, as well as removing some artificial volatility from the numbers.

We have also reduced the number of reporting regions from three to two (North and South). This will also help to increase the number of reports that go into each published *Timber Price Trend*. Each region will report prices in the scale most commonly used in that region (Doyle for the North Region and International ¼ for the South Region) with no ñStatewideò attempt to merge the data by eliminating error associated with converting from one scale to the other.

We would like to thank the members of MOFRAC who helped with this change in direction, as well as the Missouri Consulting Foresters Association and the Missouri Department of Conservation, both of whom have taken ñstepsò to encourage more reporting from t

Remember that one of the most valuable sources for information on log and timber markets is the local Missouri Department of Conservation Resource Forester or your Consulting Forester. Contact the nearest Forest District office for up-to-date, local advice. The Missouri Department of Conservation's Forestry Division, (573) 751-4115, will be happy to provide you with the name and address of the Resource Forester or MDC Regional Office nearest to you. You can locate a Consulting Forester by visiting the Mo. Consulting Forester's Association web site at: *www.missouriforesters.com* or by visiting the Private Land Assistance page of the MDC website *http://mdc.mo.gov/landown/* and clicking on Assistance Contractors òlink.

Tom Treiman and Jason Jensen, Editors



The logger plays a critical role in the harvesting of your timber sale. The Master Logger Certification (MLC) program can make your choice easier. The MLC program can help provide piece of mind for the landowner. Master Loggers are professional, properly trained, and meet the highest standards placed on the industry today. The MLC program is a performance based program that recognizes both training and experience. To find a Master Logger in your area visit the following website: http://www.moforest.org/MLC/mmldirectory.html

The Professional Timber Harvester (PTH) program provides four levels of chainsaw safety training and provides instruction on use and implementation of a ñbest management practicesò manual. PTH trained loggers possess the knowledge to harvest your timber while insuring that your residual trees, soil, and property are properly cared for. To locate a PTH trained logger in your area visit the following website: http://www.moforest.org/loggersindex.php

Tom Treiman and Jason Jensen, Editors

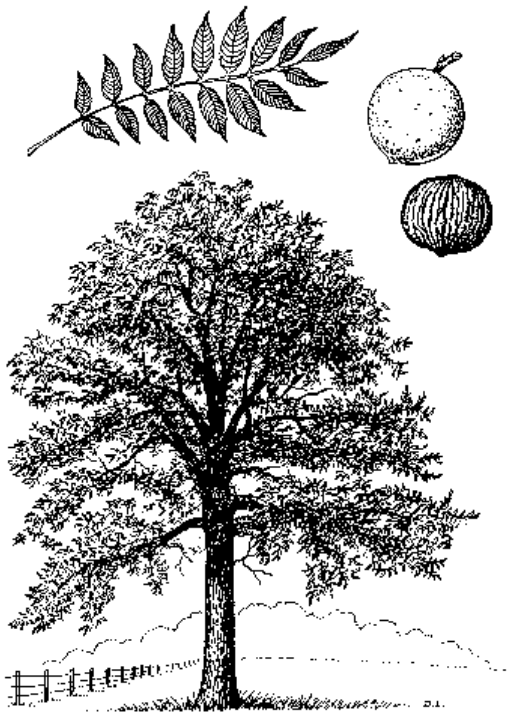
U.S HARDWOOD LUMBER EXPORTS AT RECORD PACE, 1.2 BBF THROUGH NOVEMBER

January 18, 2013 Through November, the latest month for which trade data are available, year-to-date U.S. hardwood lumber exports totaled 1.2 billion board feet (Bbf), up 10.5% y/y. 2012 hardwood exports are on pace to equal or surpass the 2006 all-time record of 1.34 Bbf. Exports to Asia grew strongly during the first 11 months of 2012. Shipments to ***China*** alone were up 52.8 million board feet (MMbf), while ***Vietnam, Japan, Thailand*** and ***Malaysia*** collectively increased their purchasing by 45.7 MMbf y/y.

January ï November 2012 U.S. hardwood lumber exports, top 15 markets.

Market	2012 YTD MMBF	2011 YTD MMBF	Change MMBF	YTD % Change
China	468.3	415.5	52.8	12.7%
Canada	238.4	221.6	16.8	7.6%
Vietnam	129.1	101.1	28.0	27.7%
Mexico	91.6	81.8	9.8	12.0%
Italy	36.7	52.6	-15.9	-30.2%
United Kingdom	30.6	26.9	3.7	13.6%
Japan	24.5	19.8	4.7	23.8%
Germany	21.5	21.9	-0.4	-2.0%
Thailand	18.1	10.3	7.8	75.6%
Indonesia	15.4	12.8	2.6	20.5%
Malaysia	14.9	9.7	5.2	53.3%
Taiwan	13.5	11.8	1.7	14.6%
Hong Kong	12.4	10.7	1.7	16.1%
Spain	9.1	12.3	-3.2	-25.6%
Korea	6.6	6.4	0.2	3.3%
World Total	**1,224.2**	**1,107.8**	**116.4**	**10.5%**

Data Source: USITC interactive tariff and trade database, retrieved 1/18/2013.



Guest Editorial Article

I was recently asked a question which I think is a common curiosity among many people, which is: how does the price of a board foot of lumber go from $0.30 on the stump to $6.00 in a store? It seems like an awfully large difference. Where is all the money going? For those of you who are loggers or sawyers, I'm sure it feels like you are getting a much too small slice of the pie. To help answer illustrate this process, I put together the table below to show how this could be happening. The reality is, based on industry data I have reviewed, as well as general observations of what has gone on in the industry, none of the participants (loggers, landowners, sawmills, etc.) are making a killing. To the contrary, many are losing money and going out of business. Ever since the recession started, there has been a glut of supply, which has caused prices to drop along with profit margins for firms large and small. But if that is true, then where is all the money going--that $5.70/bd. ft. difference between the retail price and the stumpage price?

		Illustrative Value Chain Analysis (Per Board Foot)					
						Gross	Profit
#	Step	Revenue	Purchase Cost	Operating Cost	Profit	Margin %	Margin %
1	Landowner	$0.30	$0.00	$0.12	$0.18	n/a	n/a
2	Logger	$0.55	$0.30	$0.22	$0.03	45.1%	5.1%
3	Sawmill	$0.99	$0.55	$0.40	$0.05	45.1%	5.1%
4	Kiln operator	$1.81	$0.99	$0.72	$0.09	45.1%	5.1%
5	Wholesaler	$3.30	$1.81	$1.32	$0.17	45.1%	5.1%
6	Retailer	$6.00	$3.30	$2.40	$0.30	45.1%	5.1%
	TOTAL	$6.00	$0.00	$5.18	$0.82	100.0%	13.7%

Note:

1) Purchase cost is the cost of acquiring raw material for the step in question and is equal to the revenue of the entity in the prior step.
2) Operating cost is the cost of running an operation, including payroll, general and administrative expenses and depreciation of equipment and rent.
3) In reality, the profitability of each step above will vary based on the level of involvement of each party in the process and their relative degree of negotiating leverage on parties above and below them in the process (e.g., the power of a sawmill over a logger).

The analysis above takes that example of a $0.30/bd. ft. input and a $6.00/bd. ft. retail price one step further. In business, we call this the "Value Chain". As you move down the table, the product gets closer and closer to the final form. The companies that operate in each subsequent step down the chain must purchase products from the previous step and the price that they purchase at is both the product cost to the current step and the sales/revenue to the prior step. I've assumed about a 5% profit margin for the industry for the sake of this analysis. That feels about right to me and is consistent with data that I reviewed (IBISWorld). If anything, it is high in the current state of affairs. For simplicity, I've assumed that this stays the same in each step of the process. In reality, this won't be the case. Some will be higher, some will be lower, depending on the importance of the step and the negotiating leverage that one step has on other steps (think sawmills vs. loggers).

Ultimately, what this shows is that no one is stealing the others' slices of the pie. So, where is all the money

going? Well, if you look at the "TOTAL" line, you see that total operating costs for all steps involved equals $5.18, leaving total profitability for every one of only $0.82/bd. ft. That's not a lot to go around. Who gets the $5.18? Well, this goes to pay employees, rent for buildings, general overhead costs, depreciation of the equipment (which is significant) and taxes, among other things. This $5.18 boosts the economy to be sure, but it doesn't end up in anyone's pockets as profits.

I'm sure that some of you may take issue with some of the numbers in this table or the profitability of a given segment. That is okay. This analysis is only meant to illustrate the broader picture of how this all works. It is not meant to be a completely accurate portrayal of the actual profitability of the industry as of right now. Profits and margins change between steps of the process and from year to year, so what is true this year may not hold next year.

One takeaway of this analysis is that you begin to improve your profit margins as you become "vertically integrated," meaning, as you perform more and more steps of the process yourself. For example, a sawmill operator having a logging operation, and possibly timberland holdings, and possibly also a kiln and warehousing facility. This is the case for the large firms like Rayonier, Weyerhauser and Plum Creek Timber. With this in mind, is it any surprise that these firms became integrated in the first place, or that they were better positioned to weather the recession than companies with only a single line of business? I don't think so. The more steps of the process you control, not only the more profits you make, but the higher your profit margins (profit divided by revenue) become. Let me give you an example.

Say you are a logger in the table above. You would make a 5.1% profit margin. Now, assume that you are a logger that also owns a sawmill and a kiln operation (i.e., you control 3 out of 6 steps of this process). Your cost of acquiring material is $0.30/bd. ft. from the landowner. You can sell kiln dried lumber for $1.81/bd. ft. to wholesalers and your total operating costs for the three steps are $1.34/bd. ft. ($0.22 + $0.40 + $0.72). Therefore, revenue is $1.81/bd. ft. and total costs are $1.64/bd. ft. ($0.30 + 1.34), leaving a profit of $0.17/bd. ft. This equates to a profit margin of 9.4%, which is 84% more profitable than just being a logger! Note that if you controlled all steps of the process, you would make a profit margin of 13.7% (from the "TOTAL" line of the table) versus 5.1% if you only operated in a single line of business.

Cost Share Funds Available for Loggers, Landowners

Loggers and landowners can both benefit from a Missouri Department of Conservation (MDC) pilot cost share incentive program called the Best Management Practices (BMPs) Conservation Innovation Grant (CIG). The grants are focused on encouraging timber harvesters to use good practices that protect soil and water on private land timber sales in 57 counties across the state.

According to MDC Forest Products Program Supervisor, Jason Jensen, the grant is designed to be a partnership between loggers and landowners as they do business together. If approved, the cost share pays loggers $10 to $20 per acre and landowners $5 per acre to implement BMPs on their timber sales.

To participate, Jensen says, loggers should sign up for the cost share program at their local MDC office. The program requires the logger to complete the Professional Timber Harvester course offered by the Missouri Forest Products Association or attend a BMP training class with the Department of Conservation. The deadline for completion of projects is September 1, 2013.

To find a Department of Conservation office, go online to www.mdc.mo.gov. To find scheduled Professional Timber Harvester training classes go online to www.moforest.org.

4Q12 Market Conditions

By Jason Jensen

As 2012 came to a close, the industry is looking forward to improvements in 2013. Iôve heard many comments from mills that are looking for timber. There appears to be lots of competition for standing timber in the southeast Missouri Ozarks and many mills have a low inventory for this time of year.

In the southern part of the state, tie markets continue to prop up the industry. However the last quarter has seen improvements in most lumber markets. From comments Iôve heard from many mills they are selling everything they are producing. Prices however still arenôt where they need to be for the mills to make a profit. In the northern part of the state red oak markets remain soft. White oak and walnut provide the bright spot in the timber economy especially in the northern portion of the state. Good walnut prices can be a double edged sword. Iôve heard from foresters, loggers, and sawmills that they have seen an increasing trend towards harvesting small diameter walnut. A market for a certain product doesnôt necessarily mean it is the best time to harvest the product from an economic perspective. Walnut can increase in value expotentially as it continues to increase in diameter growth. Consult a forester for local market conditions and for reliable information on when to harvest your trees.

For landowners in the River Hills portion of Missouri, markets for ñlight woodò species such as sugar maple are probably better than theyôve ever been. Good quality hickory is also in demand at this time. Iôve seen many foresters that have discriminated exclusively against these species in the past. My personal thoughts are let ôs grow the highest quality tree regardless of species. If you have high quality maple, then grow the best maple you can. Donôt hickory just because you never know where the next market opportunity may come from.

Guest Editorial

By East Perry Lumber Company-Frohna, MO

National and local news reports of improvements in the housing markets have renewed optimism for hardwood lumber industry.

Red oak- Flooring markets showed increasing interest in placing large orders, with limited activity in 1 common. FAS markets remained stable.

White oak ï Flooring markets also showed interest, while upper grades remained unchanged with reduced activity due to anticipated holiday shutdowns in Europe and Asia.

Walnut ï FAS is stable, while lower grades remained weak.

Hickory ï All grades are strong with increased demand from export markets.

In general, this quarter was a great time for loggers and landowners to harvest timber. Concerns about winter log supplies and availability affected most segments of the hardwood log market. A variety of markets were available, such as pulpwood, pallet and tie mills, grade mills, stave mills, or log merchandisers, for loggers and landowners to get a good value for their logs and timber.

Supreme Court logging roads case in limbo

January 23, 2013 AFRC Newsletter

On January 8, the U.S. Supreme Court granted a request by the State of Oregon to be allowed to file further information on the effect of the new EPA rule. All the parties - the state, industry, and the environmental organizations, had until January 22 to file further briefs. It is unlikely the Court will make any decision on how to proceed with the case until late February, at the earliest. In related developments, on January 4, the Northwest Environmental Defense Center (NEDC) filed a Petition in the Ninth Circuit seeking court review of the new EPA rule. It is clear NEDC intends to continue to pursue every available avenue to require permits for logging roads. This is entirely consistent with what their attorney told the Court.

December payroll employment up 155,000 (SA), unemployment flat at 7.8%

January 4, 2012 (BLS News Release) ð

Seasonally adjusted (SA) total nonfarm payroll employment rose by 155,000 in December. For 2012, employment growth averaged 153,000 per month, the same as the average monthly gain for 2011. For December, the unemployment rate was unchanged at 7.8%, the U.S. Bureau of Labor Statistics reported today. In December, the number of long-term unemployed (those jobless for 27 weeks or more) was essentially unchanged at 4.8 million and accounted for 39.1% of the unemployed. Employment increased in health care, food services and drinking places, construction, and manufacturing. Construction added 30,000 jobs in December, led by employment increases in construction of buildings (+13,000) and in residential specialty trade contractors (+12,000). In December, manufacturing employment rose by 25,000, with small gains in a

number of component industries. In 2012, factory employment increased by 180,000; most of the growth occurred during the first quarter.

December housing starts hit 4-year high, full year starts up 28.1% y/y

January 17, 2013 (Census/HUD News Release)

December U.S. housing starts were at a seasonally adjusted annual rate of 954,000 units, 12.1% higher than the revised November estimate and 36.9% above the December 2011 rate. December starts were at their highest rate since June 2008. Single-family starts in December were at a rate of 616,000 units, 8.1% higher than the revised November figure. Building permits were at a SAAR of 903,000 units in December, 0.3% above the revised November rate and 28.8% above the December 2011 estimate. Some 780,000 (preliminary estimate) housing units were started in 2012, an increase of 28.1% over the 2011 housing starts figure of 608,800.

November 2012 Housing Commentary

By Dalton Alderman and Urs Buehlmann

November housing construction data was mixed-starts and completions declined and permits indicated a moderate increase. Generally, this is to be expected as we go into the winter season. New and existing house sales, and permits, recorded modest increases- once again these indicators are significantly below long-term averages. The numbers of available new and existing houses for sale continues to decline, are at historically low-levels, and are positives for the construction market. Interest rates remain at historically low-levels but we still have stricter lending standards and declining real incomes. These might be contributing factors in the continued decline of first-time house buyers (in absolute numbers). The remodeling sector continues to be projected as a promising sector; however, recent data suggests stagnation in remodeling. Projections for 2013 housing starts suggest a very modest increase, in numbers, as compared to 2012. Total start estimates range from 850 thousand to 1.19 million and the range for single family starts are 596 to 820 thousand units. We hope starts do rise, as increases are a boost to the industry and the economy, no matter how small.

We have included several slides that pertained to debt and declining real incomes. Incomes are critical at this point; with prices increasing in conjunction with stricter lending standards these may become a drag on housing even with record high home affordability. Also, how will consumer psychology be affected by the a decline in real incomes? We do not know if purchasing psychology will be affected, but we should have indicators by 2013s end. Government debt is a different matter at this point in time; it may not directly affect the housing market now, but in the future it might. Debt will have to be dealt with sometime as excessive debt is detrimental to economic growth. This has been researched by Economists Carmen Reinhart and Kenneth Rogoff16 (and others), who demonstrated that when government debt exceeds 90% of the country's GDP, the servicing of debt has a negative impact on a country's economic growth rate.

The housing market continues to heal and most projections for 2013 indicate modest increases in starts. In regards to a robust U.S. housing market, our outlook remains unchanged- there remain too many potential negative macro-factors at this point in time for a robust housing recovery. Why?

1) Consumer confidence while rising, most report it is fragile,
2) a lack of well-paying jobs,
3) a sluggish economy
4) declining real median annual household incomes,
5) strict home loan lending standards, and
6) new financing and banking regulations to be implemented in the near future.

Forecast for the Wood Products Industry, 2013

By Bill Conerly, Forbes

2013 should offer good demand for wood products, with improvement from domestic usage though exports will remain soft. As usual, risks bear considering, including a possible recession in the United States, continued slowing in China, and a significant upside risk ð that housing recovers even faster than we're currently expecting. Housing starts are on pace for 750,000 units in 2012 (the December figures have not been released yet). That will be a gain of more than 20 percent from 2011. More growth is almost certainly on the way. Apartment vacancy is tight and rents are rising. That triggers more multi-family starts and leads renter to consider buying. Indeed, buying looks good with mortgage rates as low as they have ever been in history. Housing prices are starting to edge up, but have not risen enough to limit affordability, just enough to calm fears about buying a depreciating asset. Limitations on housing construction are weak job growth, tight credit standards for home buyers, and developer financing challenges. Nonetheless,

900,000 units should be easy in 2013, and we may even cross over the one million unit benchmark. Other uses of wood will grow at a much slower pace. Residential repairs and remodeling have been stagnant but are likely to improve just a little. Non-residential construction will continue to be moribund. Industrial usage (for goods manufacturing out of wood as well as pallets and crating) has been weak in the past few months but is likely to show a mild rebound in 2013. Rolling the sectors together, this year should be good for wood demand in the United States.

Overseas markets are a different story. The chart shows pretty clearly that China is now key to foreign demand for American logs. Chinaôs log demand has dropped significantly. The Chinese economy has decelerated over the past two years. The countryôs leaders are making serious move to stimulate the economy, which is a good sign. However, I have doubts that they can fine-tune their economy any better than we can fine-tune ours. (Ask Ben Bernanke how thatôs going.) Further, the Chinese rulers would prefer to stimulate domestic consumption rather than construction. That implies that Chinese log demand is unlikely to rebound sharply.

If I were a betting man, Iôd rather be long on wood than short, but there remain risks. The greatest risk facing the United States economy is a recession triggered by the European financial crisis. As Iôve written elsewhere, a recession in 2013 would have mild effects on the housing market. China may continue to decelerate, so instead of her demand for our logs stabilizing, it may well continue to shrink. That should concern upstream producers, though it would be favorable for the operating costs of U.S. sawmills.

Business leaders in the industry should be prepared for another risk: stronger-than-expected demand. It sounds good, but unplanned growth presents challenges. Suppliers may not be ready to deliver raw materials, cash holdings may be stretched be the need to pay bills before revenue is received, and skilled workers may not be readily available. Itôs economic contingency planning. (see my video series on Business Planning in an Uncertain Economy, especially the last video about upside risks).

Could wood biomass help clean up coal-fired power plants?

by Dan Haugen

Cheap natural gas and flat electricity demand has left the prospects for wood-chip and wood-pellet fuels barely smoldering in recent years.

But wood biomass could soon have a new role in energy production: cleaning up coal-fired power plant emissions.

A year-old company called Biogenic Reagents recently completed construction of a $30 million, commercial-scale production facility in Marquette, Michigan, where sustainably harvested wood into a product that can pull mercury out of power plant emissions.

The technology could enable coal plants to comply with forthcoming EPA mercury rules at a relatively low cost.

The process involves a technique called pyrolysis, in which wood is heated in an oxygen-deprived container. Without oxygen, wood canôt burn. After a sequence of chemical reactions to remove volatile organic compounds, whatôs left is a pure material known as activated carbon.

Activated carbon, sometimes called activated charcoal, is a porous material thatôs good at bonding with other materials. Its most common use is in water filtration, everywhere from municipal water treatment plants to the water pitcher in your refrigerator.

The use of activated carbon at power plants is a relatively new one. A mercury emissions control program at the U.S. Department of Energyôs National Energy Technology Laboratory in Pittsburgh funded activated carbon research for about a decade ending in 2008, when it decided federal support was no longer needed.

ñWhatôs compelling is an inexpensive retrofit,ò says Tom Feeley, a senior technical advisor who managed the DOE mercury control program.

How it works

The method doesnôt require expensive equipment upgrades. Most of the cost is in buying the activated carbon. A fine cloud of carbon is injected into the exhaust stream, where it bonds with mercury, forming clumps of material big enough to be captured by existing particulate filters.

Feeley estimates that activated carbon controls are now installed or planned to be installed on units accounting for about a quarter of the nationôs coal-fired generation capacity.

The market for activated carbon at power plants is likely to grow with new federal mercury standards on the horizon.

ñIt ôs a billion-[dollar]-a-year or more opportunity in the United States alone, and base of zero a few

Bob McIlvaine, president of The McIlvaine Company, a consulting and technical research firm in suburban Chicago that closely tracks mercury control technologies.

Coal-fired power plant operators spent about $50 million on activated carbon in 2010. By 2015, McIlvaine projects that number will exceed $500 million. That would exceed the current market for water filtration and more than double demand for activated carbon.

The problem, says Biogenic Reagents founder and CEO Jim Mennell, is that most activated carbon is made from coal, through a process that creates mercury emissions itself.

ñWhen youôre making environmental technology, you canôt just say that it reduces emissions. Overall, it is a really good for the environment that I think we are a factor better than coal-based carbon.ò

Why wood?

Biogenic Reagentsô wood-based alternative is far cleaner to produce, says Mennell, and it also costs less and performs better than coal products.

The company hired Stanford University Energy Conversions Lab to conduct blind, side-by-side trials that showed it was more effective than two coal-based competitors, he says. It also partnered with a Michigan utility, which he says has signed a non-disclosure agreement, for a full-scale trial at a coal-burning power plant.

The results: Biogenic Reagentsô activated carbon product was able to reduce mercury emissions by more than 90 percent, hitting levels three times lower than new Mercury and Air Toxics Standards that take effect in early 2015.

Mercury is a neurotoxin linked to learning, growth and development and reproductive issues. A common exposure is through eating fish from waters contaminated by mercury. Coal-burning power plants are the largest human-caused source of mercury pollution.

After about a year of operating in stealth mode, Biogenic Reagents is just now going public with their products. Another variation of the recipe produces a wood-based substitute for metallurgic coke, a coal-based product used in refining metals and a major source of greenhouse emissions.

ñWe wanted to demonstrate that we could actually scale it up and prove it actually worked on a commercial scale before announcing it to the world,ò says Mennell.

The company has a Minnesota facility capable of annually processing 300,000 tons of biomass, all of which will be purchased through suppliers certified by the Forest Stewardship Council or Sustainable Forestry Initiative. The plant will employ about 40 people and will support other area forestry, transportation and construction jobs.

Because activated carbon fetches a far higher price than raw coal or wood fuel, it was able to startup without any direct government support. The company investors include Mennell, a Minneapolis environmental attorney who has represented several ethanol and biomass firms, and Dan Deeg, owner of Interpoll Laboratories, an environmental sampling and analysis lab north of the Twin Cities.

McIlvaine says thereôs opportunity for challengers in the activated coal market. The existing producers, including Calgon Carbon, Cabot, Norit, and Westvaco will be challenged to keep up with new demand if it grows as he expects it will. (Spokespeople for Cabot and Norit didnôt return phone calls for comment)

Mennell says Biogenic Reagents is in discussions with potential large-scale customers, which they hope to announce within a couple of months, with an eye toward expanding the Michigan facility in the next year.

ñWeôre rolling it out, our expectation is that we should have a pretty positive reception in the marketplace,ò says Mennell. One that could have a pretty positive impact on the environment, too.

Missouri Timber Price Trends

We track market prices for Stumpage. Reports on the Stumpage Market are received from Missouri Department of Conservation Resource Foresters and private consulting foresters. Stumpage refers to timber sold on the stump and does not reflect delivered mill prices. These reports should serve as a general guide to track stumpage prices. Landowners should not use this report to replace a timber inventory and marketing assistance as methods of conducting a sale. Missouri Department of Conservation Resource Foresters will be able to provide information on current, local market conditions. Details of all private sales and delivered prices are kept confidential.

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