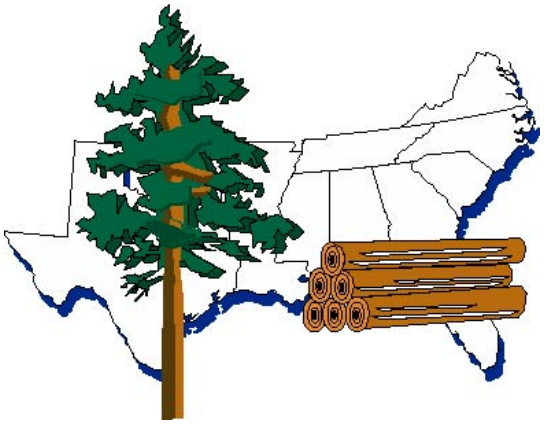
4th Quarter 2009 -- Vol. 14 No. 4



Timber Mart-South Market News Quarterly

The Journal of Southern Timber Market News

A Quarterly Report of the Market Conditions for Timber Products of the Southeast US

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Prices & Market Conditions

Pulpwood prices took a bounce in the 4th Quarter of 2009. South-wide average pine and hardwood pulpwood stumpage prices were up 17 and 15 percent respectively, more than one dollar per ton above last quarter's averages.

Wet weather conditions continued to affect wood supply and logging conditions this quarter, with a vengeance. Arkansas had a record wet October and the wettest year in the past 115 years. Winter storms added deeper than normal snowfall in the Piedmont and hazardous conditions in the rest of the South. Logging activity and transportation came to a stand-still.

Sawtimber product prices were relatively flat for the quarter. Markets remained weak. Holiday curtailments occurred on top of market-related downtime. Southern pine lumber production has not been so low since 1985.

Pulp mills continued to increase production compared to the first part of the year; however, operating rates in the paper and paperboard sector remain below 90 percent. US paperboard production is only 87 percent of ten years ago, and paper production only 73 percent.

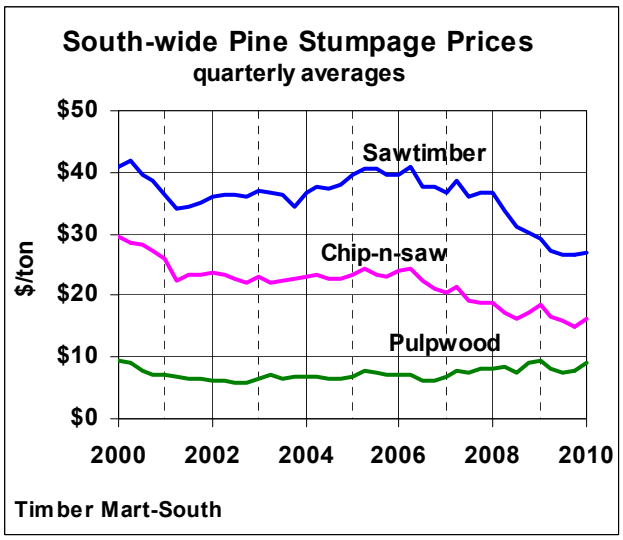
The South has lost ten pulp mills since 2000, with two more closures announced this quarter.

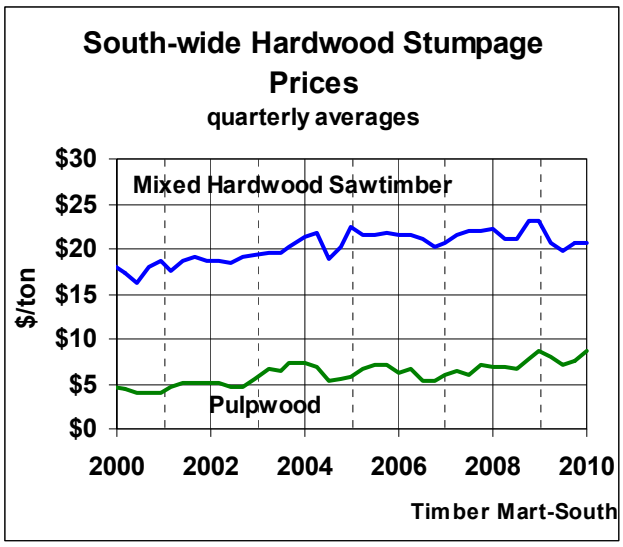
South-wide Average Stumpage Prices $/ton					
	one quarter			year ago	
	4Q 09	3Q 09	%Δ	4Q 08	%Δ
Pine Sawtimber	$27.07	$26.47	+2.3%	$29.16	-7.2%
Pine Chip-n-saw	$16.30	$15.05	+8.3%	$18.52	-12.0%
Pine Pulpwood	$9.09	$7.76	+17.1%	$9.57	-5.0%
Hardwood Sawtimber	$20.74	$20.67	+0.3%	$23.12	-10.3%
Hardwood Pulpwood	$8.60	$7.45	+15.4%	$8.59	+0.1%

Pine Prices

Pine sawtimber stumpage prices increased slightly this quarter, ending an eight quarter slide. Chip-n-saw prices ticked up as well. Prices are still near record lows. Both averages have dropped $13 per ton over the past ten years. Reporters said there were very few final harvests, with most sellers sticking to thinning operations that would yield more pulpwood and leave sawtimber to grow.

Pine pulpwood stumpage prices increased this quarter. Steady demand collided with difficult logging conditions. The south-wide average pine pulpwood price was down slightly from one year





ago, which was the highest since 1998. The stumpage price is up $3 per ton from five years ago and about the same as ten years ago.

Hardwood Prices

Mixed hardwood stumpage prices remained flat, nearly unchanged for the fourth straight quarter. While slightly below prices five years ago, the south-wide average is about $2.50 per ton above ten years ago.

Hardwood pulpwood prices strengthened much like those for pine pulpwood, and for many of the same reasons. Average hardwood pulpwood stumpage prices in Alabama, Florida, and Tennessee were higher than a year ago. The south-wide stumpage average is nearly unchanged from a year ago, $2.80 higher than five years ago, and $4 per ton above ten years ago.

Selected Reporter Comments 4Q 2009:

- Upland sites with expected all-weather logging brought unusual competition for the times and prices above market level.
- Pine pulpwood markets strengthened significantly over the past two months.
- Local mill inventories were low due to three months of record rainfall.
- Reduced sawmill capacity, weather and growing biomass demand created a strong demand for chips.

Market Indicators

"Are we there yet?" echoed in analysts' columns and news reports this quarter, wondering if economic conditions had turned the corner and were on the rebound. The answer is, "Yes and no".

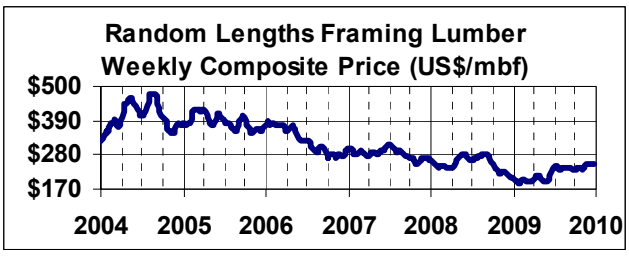
Paper and paperboard production and prices have been on the recovering side of the economy. In addition, some pulp producers have benefited from fuel subsidies in the form of tax credits for "black liquor", which ended this quarter, and BCAP for biomass fuel, which started up this quarter. See news items on page 33.

However, at the end of 2009, housing construction and related wood product building materials such as lumber and panels remain near the bottom of a four to five year slide. Signs of stronger prices this quarter brought some optimism but expectations for stronger demand in 2010 remain limited.

Lumber & Panel Indicators

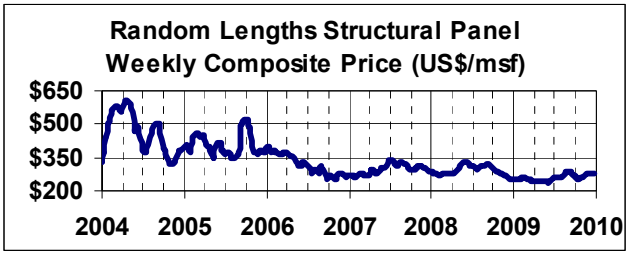
The Random Lengths Framing Lumber Composite (FLC) price ended the quarter at $248 per thousand board feet (mbf), up slightly over last quarter and up nearly 20 percent from one year ago. The Southern Pine Composite was $254 per mbf, also up for the quarter but more stable year over year. Lumber prices were at record low levels January through March and, though stronger at year end, remain low by historical standards.

Random Lengths Framing Lumber Composite $/mbf				
31-Dec-09	21-Aug-00	% +/-	31-Dec-08	% +/-
248	234	6.0%	207	19.8%
Random Lengths Southern Pine Composite $/mbf				
31-Dec-09	21-Aug-00	% +/-	31-Dec-08	% +/-
254	242	5.0%	250	1.6%



The Structural Panel Composite price ended the quarter at $273 per thousand square feet, 3/8 inch basis (msf), slightly stronger than at the end of September and up nearly 9 percent from the end of December 2008.

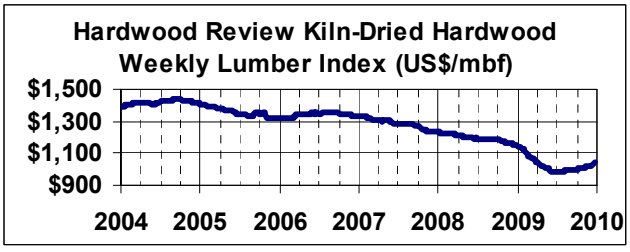
Random Lengths Structural Panel Composite $/msf				
31-Dec-09	25-Sep-09	% +/-	31-Dec-08	% +/-
273	266	2.6%	251	8.8%



In contrast, southern pine plywood prices and southern Oriented Strand Board (OSB) prices ended 2009 about 2-3 percent lower than at the end of September. Pine plywood prices were also lower year over year, down on average 15 percent from December 2008. OSB prices, however, more closely followed the overall panel price trend, ending 2009 stronger than at the end of 2008.

The Hardwood Review US Kiln Dried Hardwood Lumber Index was $1,041 per thousand board feet (mbf) at the end of December, continuing an upward climb this quarter although still down for the year.

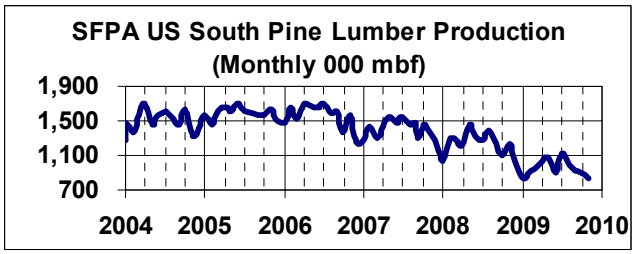
Hardwood Lumber Price Kiln dried Index $/mbf				
25-Dec-09	25-Sep-09	% +/-	26-Dec-08	% +/-
1041	996	4.5%	1148	-9.3%



The Southern Forest Products Association (SFPA) reported that southern pine lumber production was 842 million board feet (mmbf) in October as the 4th Quarter began, weaker than the mid-summer levels and more than 30 percent below October 2008.

Year-to-date lumber production through October was 9.7 billion board feet (bbf) and, at this rate, annual production will be about 11.1 bbf, less than 60 percent of the peak in 2005. See Openings & Closings on page 25.

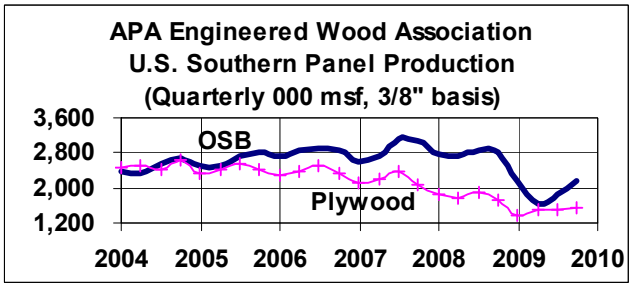
Southern Pine Lumber Shipments 000 mbf				
Oct-09	Jul-09	% +/-	Oct-08	% +/-
842	983	-14.3%	1228	-31.4%



Southern panel production increased in the 3rd Quarter of 2009, according to the latest report available from the APA Engineered Wood Association, but remained at historically low levels.

Southern Oriented Strand Board (OSB) production moved higher for the second straight quarter: up about 18 percent quarter over quarter while remaining down 23 percent year over year. Southern plywood production was up slightly for the quarter, and down about 10 percent from the same period in 2008.

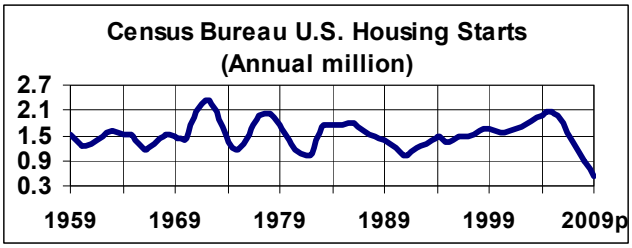
Southern OSB Production 000 msf				
3Q09	2Q09	% +/-	3Q08	% +/-
2171	1847	17.5%	2818	-23.0%
Southern Plywood Production 000 msf				
3Q09	2Q09	% +/-	3Q08	% +/-
1548	1523	1.6%	1716	-9.8%



US Building Construction

As 2009 drew to a close, US privately-owned housing starts remained at record low levels. Total year-to-date privately owned residential housing starts through November were 518,000 according to the US Census Bureau, down about 40 percent from the same period in 2008. Southern starts were down proportionately.

Residential Housing Starts, 000 units year to date			
	Nov-09	Nov-08	% +/-
US	518	864	-40.1%
South	259	432	-40.1%

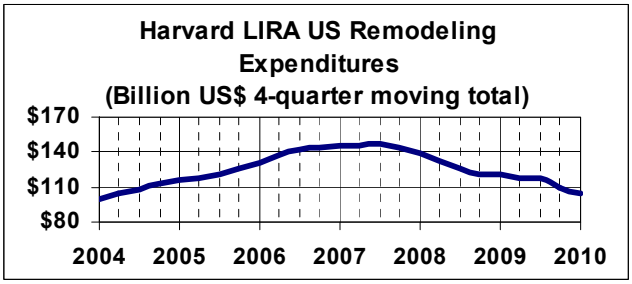


Housing construction in 2009 will total 541 thousand new units if the current pace continues. This is about 26 percent of the 2.07 million housing units started in the peak year of 2005.

Remodeling activity may have hit bottom in the 4th Quarter 2009. Expenditures on remodeling were down about 12 percent in the 4th Quarter compared to the same period last year, according to the Harvard University Leading Indicator for Remodeling Activity (LIRA). The report predicts spending will increase slightly in 2010. Levels in 2009 were about the same as in 2004.

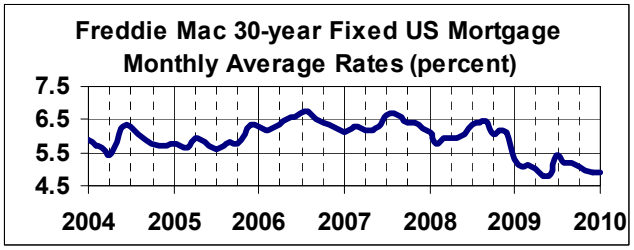
http://www.jchs.harvard.edu/media/lira/ .

US Remodeling (LIRA) Billions USD, 4 quarter totals				
4Q09	3Q09	% +/-	4Q08	% +/-
105.0	109.7	-4.3%	120.1	-12.6%



Mortgage activity at year end was more robust than one year ago. Refinance took more than 75 percent of the market. The December average for 30-year fixed-rate mortgages was 4.93 percent, according to Freddie Mac, slightly below the September 2009 average. The lowest average rate in many years was in April 2009 at 4.81 percent.

30-year Fixed US Mortgage Rates (percent)				
Dec-09	Sep-09	Δ +/-	Dec-08	Δ +/-
4.93	5.06	-0.13	5.29	-0.36



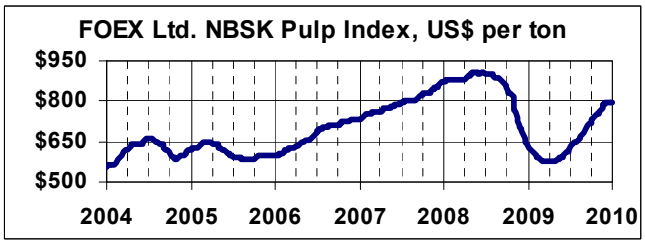
The Federal Reserve Open Market Committee (FOMC) has kept the federal funds rate at zero to 0.25 percent since December 16th 2008.

Pulp & Paper Indicators

Pulp prices increased for the third straight quarter. The FOEX Ltd. Northern Bleached Softwood Kraft (NBSK) pulp price index ended December at $799 per ton, up more than $220 per ton from the most recent low in March 2009, but still about $100 per ton below the peak in May 2008.

Bleached hardwood kraft pulp prices, at $700 per ton, followed a similar trend but increased more this quarter than softwood.

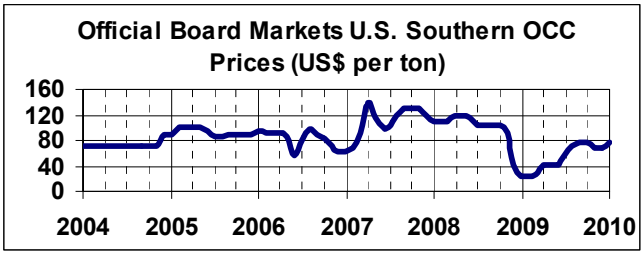
FOEX NBSK Index US$/ton				
29-Dec-09	29-Sep-09	% +/-	30-Dec-08	% +/-
799	721	10.9%	642	24.5%
FOEX BHK Index US$/ton				
29-Dec-09	29-Sep-09	% +/-	30-Dec-08	% +/-
700	599	17.0%	585	19.8%



The American Forest and Paper Association (AF&PA) reported that US paper production was down about 14 percent through November compared to the same period in 2008, and paperboard down about 10 percent. At the current rate, total paper and paperboard production in 2009 will be about 78.3 million tons, compared to 87.4 million tons produced in 2008, a 12 percent reduction. For a longer term comparison, total production in 1999 was over 97 million tons and from 2004 to 2007 averaged 91.7 million tons. See Openings & Closings on page 25.

Recovered corrugated container prices remained stable this quarter. According to Official Board Markets, Old Corrugated Container (OCC) monthly average prices in the South were $78 per ton in December, unchanged from September although not fully recovered from the dramatic decline in prices that occurred the last quarter of 2008 from $105 per ton to $23 per ton.

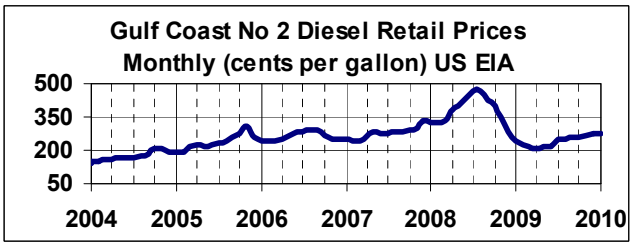
Old Corrugated Containers - US South in $/ton				
Dec-09	Sep-09	% +/-	Dec-08	% +/-
78	78	0.0%	23	244.4%



Energy & Carbon Markets

Fuel prices increased gradually this quarter. The December 2009 monthly average Gulf Coast diesel price was $2.70 per gallon, up quarter-over-quarter as well as year-over-year, having bottomed in March 2009 at $2.06. Prices remain well below last year's July peak of $4.68 per gallon.

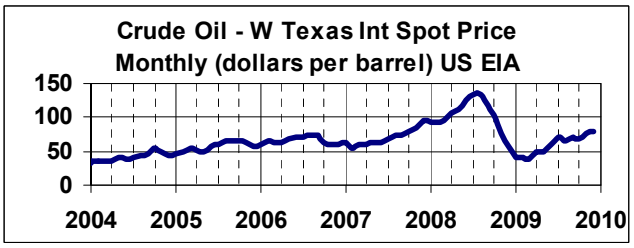
Gulf Coast #2 Diesel – Retail (cents per gallon)				
Dec-09	Sep-09	% +/-	Dec-08	% +/-
270	255	5.9%	239	12.7%



http://tonto.eia.doe.gov/oog/ftparea/wogirs/xls/psw18vwall.xls

Crude Oil prices have followed a similar pattern, although with greater increases. The November 2009 monthly average West Texas Intermediate Crude price was $78 per barrel, up nearly 10 percent from August. Crude oil prices hit bottom in February of this year at $39 per barrel, down nearly $100 per barrel from the June 2008 peak of $134 per barrel. The EIA predicts crude oil prices will hover around the $80 per barrel level in 2010.

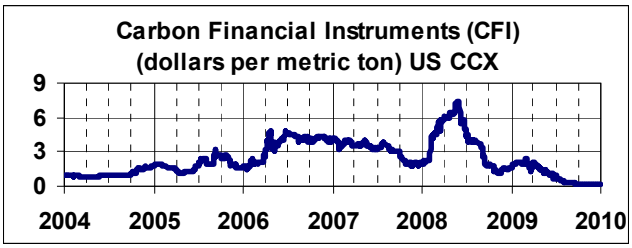
W Texas Int. Crude Oil (dollars per barrel)				
Nov-09	Aug-09	% +/-	Nov-08	% +/-
77.99	71.05	9.8%	57.31	36.1%



http://tonto.eia.doe.gov/dnav/pet/xls/PET_PRI_SPT_S1_M.xls

Carbon prices moved lower again this quarter in both the US and Europe. The Chicago Carbon Climate Exchange (CCX) prices remained at nearly zero again this quarter, although switching to a "2010 vintage" strengthened the price slightly. Prices peaked at $7.40 per ton on June 2nd 2008 when energy and commodity prices were booming. Analysts have also attributed the CFI price collapse to uncertainty related to a switch from the current voluntary market to proposed federal cap-and-trade regulations.

Carbon Financial Instruments (dollars per tonne)				
Dec-09	Sep-09	% +/-	Dec-08	% +/-
0.15	0.15	0.0%	1.70	-91.2%



The Regional Greenhouse Gas Initiative (RGGI) held its sixth quarterly auction on December 2nd for carbon emissions of utilities in the Northeastern US. Prices have dropped lower with each of the four successive 2009 auctions.

- For 2009 vintage: US$2.05 per ton compared to US$2.19 in the September auction.
- For 2012 vintage: US$1.86 per ton compared to US$1.87 per ton in September.

A CO^2 allowance represents a limited authorization to emit one ton of CO^2. Results are available at:

http://www.rggi.org/docs/Auction_6_Results_Release_MMrep.pdf

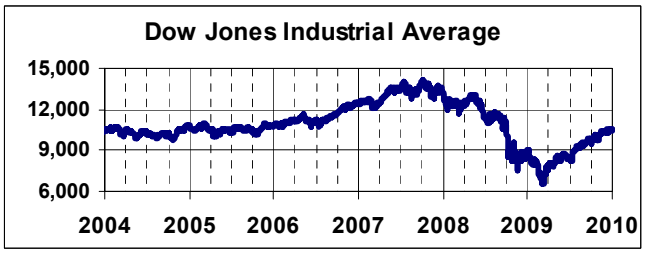
The European Point Carbon price for the December 2010 vintage was EU€12.68 per ton on December 30th (about US$18.25 per ton), down EU€3 (US$4) per ton from one year ago. Prices peaked at EU€30 in July 2008. Spot prices are available at:

http://www.pointcarbon.com/news/

Other Market Factors

Stock markets strengthened for the third straight quarter. The Dow Jones Industrial Average (DJIA) finished the quarter at 10,428, up 7 percent over the end of September and up 58 percent over the market low of 6,594 on March 5th. The DJIA has to gain another 17 percent, over 2,200 points, to regain the market high of April 2008.

DJ Industrial Average				
31-Dec-09	30-Sep-09	% +/-	31-Dec-08	% +/-
10,428	9,712	7.4%	8,776	18.8%



The S&P 500 finished the quarter at 1115, up 6 percent for the quarter; and the NASDAQ Composite 2269, up 7 percent.

Manufacturing activity expanded for the fifth consecutive month in December 2009, switching from contraction to expansion in August. The Institute for Supply Management's Purchasing Managers Index (PMI) which aggregates activity in US manufacturing was 55.9 in December, up from 32.4 in December 2008, where 50 indicates economic expansion, and below indicates contraction. Nine of the 18 manufacturing industries reported growth, including Paper Products; however Wood Products was one of the seven industries that continued to report contraction.

http://www.ism.ws/index.cfm

The Forest Industry of the Future: What Will It Look Like?

By J. Brian Fiacco

I was recently asked to speak at the North Carolina Forestry Association's annual meeting in Myrtle Beach on the above captioned topic. Before agreeing to the talk, I had to think about it for a while. The quote "Its tough to make predictions, especially about the future" attributed to Yogi Berra, as most quotes are, hung in my mind for a few days. But I took a shot at it and later agreed to share some of those thoughts with TMS readers.

First, there has to be a basis for the prediction. The basis that I chose was to look at the changes occurring in the forest industry and to look at what I thought the future economic environment might look like.

The three key changes in progress are:

- Changing Timberland Ownership
- Biomass for Energy
- Global Industrial Revolution

Timberland Ownership:

The shift in ownership (from forest industry to institutional) is well documented and well underway so there is no need to spend time on it (maybe a couple of comments!). Due to the housing/lumber market collapse, timberland owned by the sawmill industry is following in the footsteps of that formerly owned by the pulp and paper industry. This is illustrated by the timberland ownership shifts of Allegheny Wood Products and Anthony Forest Products to TIMOs. Survival can be tough. The second point is that the institutional owners have no allegiance to a mill, so the wood will flow to the highest bidder.

Biomass for Energy:

This is not a new thing, but its impact is changing and the magnitude of the issue is not universally well understood so it merits significant discussion. There are three drivers pushing the biomass market shift.

1. Renewable Energy: The desire to shift to energy sources that we cannot "run out" of. Many states already have legislated renewable energy targets and biomass, particularly in the Southern states, is playing a key role toward the advancement of those goals.
2. Climate Change: The desire to shift away from energy sources that add to the perceived problem of man-caused global warming. Burning wood is carbon neutral when viewed from a carbon cycle perspective. This appears to be more of a political issue than a scientific one, but that is irrelevant to the outcome. Pellet exports from the US to Europe increased more than ten fold last year fueled by carbon taxes in EU countries. If Cap and Trade is passed here, expect to see an even greater shift from coal to biomass by utilities.
3. Energy Self-sufficiency: This is the most important concern from my perspective. It is significant from both national defense and economic security points-of-view.

So where will this biomass come from? The primary sources of woody biomass are manufacturing residues, harvest residues, urban waste (construction, etc.), pulpwood, and short rotation crops grown specifically for biomass. I have looked at available manufacturing residues for multiple clients and there is just not a significant amount available. It is virtually ALL being used and most of it is used by the forest industry to produce products or energy. Harvest residues are there BUT, as the pulp and paper industry knows, harvesting residues is expensive, they have a negative impact on mill processing, and they produce a product of inferior quality and value. These traits are equally true for pellets and pulp. I don't know much about urban waste but there is

less of it with the housing market decline. *So that leaves pulpwood and that is where the bulk of the woody biomass resource will come from*.

To better understand the magnitude of potential biomass demand, let's look at some of the new facilities.

A Pellet Mill: The pellet mill in Cottondale, Florida started up in April 2008 as the largest pellet production facility in the world. One hundred percent of the plant's production is for export to Europe where the pellets are mixed with coal to reduce carbon emissions in the production of electricity. The driver behind it is the European carbon tax applicable to coal but not the carbon neutral wood pellet. The plant produces 560,000 tons of pellets annually and consumes about 1,000,000 green tons of wood. The resource used is not "residue" -- it is pulpwood. This facility is the equivalent of a new pulp mill.

Cogeneration: This is certainly not new in the forest industry as our pulp mills have been doing this for a long time. What is new is the magnitude of the projects. Industry is expanding the use of cogeneration, schools are installing the systems, and one village in Pennsylvania is building a system to use the steam to heat all of the houses in the village as well as supplying the electricity to them. An industrial example is the Sonoco / Peregrine Energy Corporation plan to develop a new $135 million woody biomass-fueled cogeneration plant in South Carolina. Plans are for Peregrine to construct a new 50-Megawatt (MW) capacity facility that will be capable of generating enough electricity to power approximately 14,000 homes. The new biomass-fueled cogeneration facility will replace Sonoco's existing coal-fired boilers. Peregrine intends to sell the entire electrical output and all renewable energy certificates associated with the plant to Progress Energy Carolinas, Inc., and low pressure steam from the plant to Sonoco for use in the manufacture of recycled paperboard and other converted products. The owners say that the project would benefit the regions' forestry industry by utilizing pre-commercial thinnings and waste logging residues as the woody biomass fuel for the project.

As a rule of thumb, a 100-megawatt plant will consume about a million green tons. This facility will therefore consume about one-half of that: still a lot of pre-commercial thinnings!

A Coal Fired Power Plant: This one really caught my attention. The power companies are struggling with the renewable energy standards. In the East, there is limited opportunity for wind, solar or geothermal energy so biomass is about the only alternative left (hydro is out for a multitude of reasons). FirstEnergy at Shadyside, Ohio has announced its conversion from coal to biomass. The largest proposed development to date had been Yellow Pine Energy's 110 MW project in Georgia, a million-plus ton per year wood consumer. FirstEnergy's is 312 MW and will consume 3 million green tons! This is on par with the South's largest pulp and paper mills.

The sheer quantity and magnitude of the announced facilities similar to the examples above is staggering from a resource consumption viewpoint. Not all of them will come to pass, but it is very clear that enough of them will reach production levels to greatly impact the future supply/demand picture for forest products.

Global Industrial Revolution:

The third key change, the global industrial revolution, is well under way but it may never be realized. All of the developing nations have ambitions to reach the standard of living with which we are blessed but the commodities, the natural resources, are just not there to reach that level on a global basis. Commodity shortages, particularly oil and other transportation energy sources, will prevent the world from reaching the level that we have obtained and, more than likely, those same shortages will prevent us from maintaining that level. Escalating transportation costs will cause us to revert back to a society much more dependent on manufacturing. It is significantly less expensive to ship dried lumber than logs.

The three key changes mentioned above combine with a couple of additional economic factors to create the drivers that define *my view of our economic future.* The drivers are:

- Social drive for renewable energy, energy self-sufficiency and climate change.
- High energy costs- the key cost escalator.
- High inflation rate (perhaps hyperinflation) driven by:
  - Very high government spending.
  - Very high oil prices.
  - Commodity shortages, including timber.
- Declining value of dollar (see Figure: US Dollar Index).

The Forest Industry of the Future

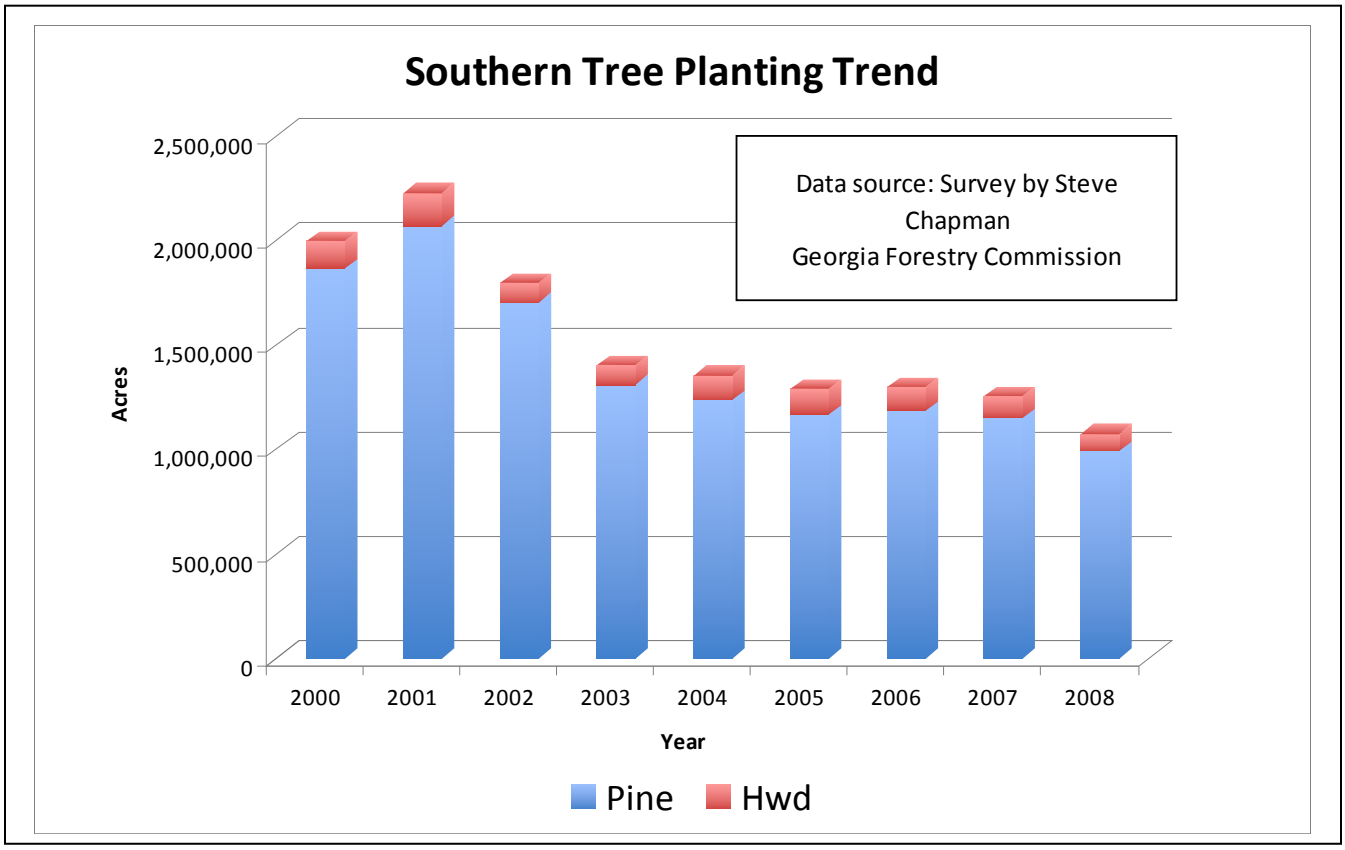
The Future of the Pulp Mill: Domestic paper demand will continue its downward trend but I am not as pessimistic about the industry's future as most people are. The continuing decline in the dollar, although very bad for the consumer, will have a positive impact on the pulp and paper industry. The export market will be much brighter. A great deal of capacity has already been taken out of the market. Although biorefinery economics are very unclear at this time, more capacity may come out as some mills are converted from pulp to production of "ultra-clean, renewable motor fuels". As the energy transportation costs rise, it may be cheaper to burn pulpwood for energy and convert

black liquor to transportation fuels. The key driver is the future price of oil and that may be considerably higher than the current consensus. The major downside for the pulp and paper industry will be the competitive demand for wood. Wood is both its raw material and its energy source, and the power companies are going to be very tough competitors.

The Future of Sawmills: Despite the doom and gloom about future housing, domestic lumber demand driven by housing demographics still looks good *after* the excesses have been worked off. The Global Industrial Revolution, combined with a weaker dollar, will create a very positive manufacturing and exporting environment for sawmills. Global housing and lumber demand will be high, and the US will be one of the key suppliers. Very high energy costs make it more cost effective to ship lumber than logs to export markets, reversing the current norm. There will be a much more competitive market (higher prices) for mill residues. Consistent and steady demand from biomass consumers will provide a steady supply of logs from producers. Things couldn't look much better, assuming there is a mill somewhere that survives the current crisis! It's always darkest before the dawn.

The Future of Biomass Consumption: Biomass utilization is a game changer in the forest industry because of the sheer quantity of biomass that will be utilized. Many schools in cold climates are heating with wood chip boilers today and they are saving money without any subsidies (and this is spreading to the warmer South as well). European *villages* have moved in that direction and some Canadian and US villages are capitalizing on their experiences. The developing demand by the power companies seems so huge as to be unsustainable.

Transportation cost increases will work against the large biomass programs such as the 3 million green ton Ohio facility. Power facilities with less output and shorter haul distances will be more cost effective (diseconomies of scale). If the "man-caused" global warming issue does not result in tax legislation, if consumers scream too loudly about electrical cost increases, government may back off and the power companies will be able to revert to coal to produce electricity more economically. That would take the pressure off biomass and still provide energy self-sufficiency to a degree. But

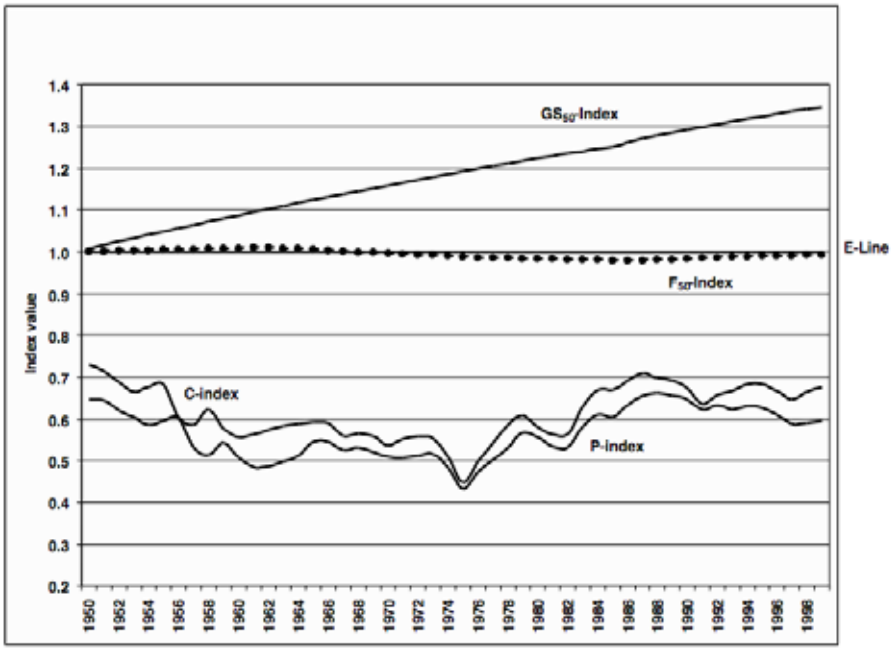


even that scenario will not change the shift to biomass for energy. Oil is a finite resource, and more energy must be expended to get each additional barrel. Like it or not, oil prices are on the wrong end of the power curve, and that means that transportation costs are too. There WILL come a point, I don't know when, where cellulosic ethanol (or one of the other wood-based transportation fuels) is less expensive than oil. When that happens, the forest industry will be changed forever.

The Future in the Forest: Recent economic drivers supporting longer rotations are creating a "wall of wood" in the sawlog size class. Institutional investors have lengthened rotations from the pulpwood size-class to the sawtimber size-class to capitalize on the price differential. Sawtimber sales have been deferred as a result of poor markets, so harvest followed by planting has slowed (Figure: Southern Tree Planting Trend).

The graph shows a significant decline in planting, which is troubling to some folks, but more likely reflects increased thinnings and significant reductions in clearcutting. Short rotation energy plantations close to market will happen IF wood costs go up significantly OR planners fail to anticipate increases in transportation costs. There will be more "in-woods" operations (chippers, biomass harvesting, biochar, and perhaps mobile methanol) -- all driven by higher oil costs. Biomass harvests will be incorporated into conventional tree planting prescriptions. Far more competitive markets will mean higher stumpage prices for biomass and pulpwood. The current growth/drain ratios are very favorable (Figure: US Growth vs. Consumption) but sustainability will probably become a political issue, if not a real one.

U. S. Growth vs. Consumption



The **GS_{50}-Index** is the cumulative accrual factor for growing stock volume since the base year 1950.

The **E-Line** is the equilibrium point where net annual growth would be equal to domestic production in a given year. If this occurs, the growing stock accrual line would flatten during that period.

The **F_{50}-Index** is the change in total forest area since the base year 1950.

The **P-Index** is the proportion of annual net growth needed to provide for domestic timber production in a given year.

The **C-Index** is the proportion of annual net growth that would be needed to provide for domestic consumption in a given year if there were no imports and we were required to meet our own demand.

Source: Modified from an FIA "Trend Data" slide program

Changes in Wood Supply Chain: It is the same basic Wood Supply Chain, but…

- Harvest residues will be added, probably more mechanized.
- Biomass demand brings more stable wood demand.
- No monthly (weekly, daily) shifts in mill consumption.
- No shifts in species needed.
- Annual contracts for wood producers become practical for biomass production -- good news for loggers!
- May force the same contract changes for pulpwood and sawlog buyers.
- Logging will become a more robust, stable and competitive market segment.

Synopsis of the Future Forest Industry

- Biomass/Power companies will be a key part of the industry.
- There will be more "in-woods" operations (chippers, biomass harvesting, biochar, and perhaps mobile methanol).
- A smaller pulp and paper industry will survive and exporting will play a larger role.
- Sawmills: Demographics still favor housing and lumber export market will become significant. Imports less competitive.
- Logging contractors will have a more stable operating environment. Annual production contracts.
- Stumpage market will be more competitive and more stable.
- Plantation establishment will consider energy market.

- ❖ Timberland ownership will be a good place to be!

So that's the way I see it. A global economy responding to a failed energy policy built on unsustainable oil production. This view of the future may not be right, but it is worth considering as you go forward.

About the author

J. Brian Fiacco authors The Timberland Blog *("Examining the changes in timberland ownership and what those changes might mean.")*, which is widely read by industry analysts, institutional investors, TIMOs and the forest industry. He also owns Timberland Strategies LLC, a consultancy focusing on the subjects of timberland valuation, sales, and resource analysis (including the evolving impact of woody biomass on wood demand). Fiacco owns and manages tree farms in NY and SC. He is a graduate of NC State and resides near Summerville SC.

Timberland Transactions

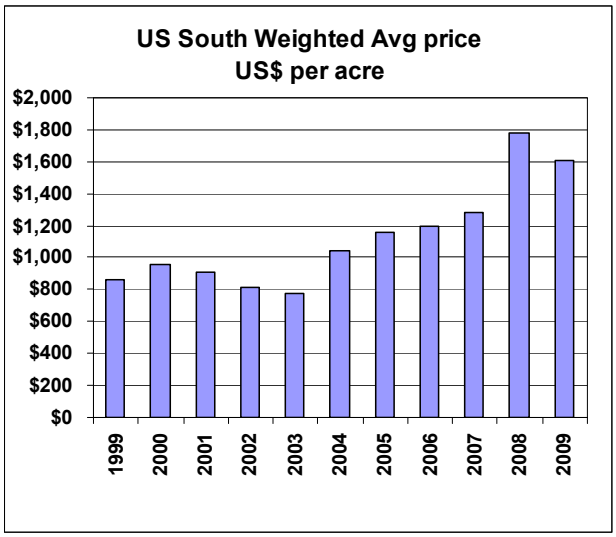
About 160,000 acres in US timberland sales were announced this quarter, nearly 146,000 in the South. Weighted average price per acre was $1,585 for the US and $1,660 in the South. Sales outside the South clustered in West Virginia.

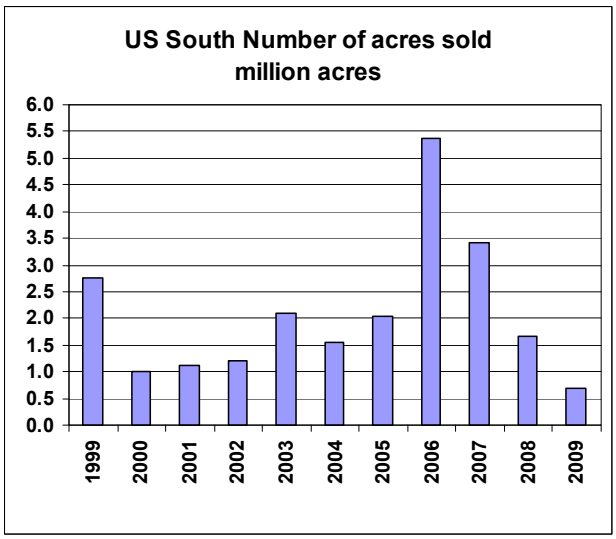
At press time, total US timberland sales for 2009 were approximately 1.55 million acres, well below the annual average in recent years. Over the past five years US sales have averaged 4.43 million acres per year, 3.76 million acres per year over the past ten years.

Sales in the South totaled 698,000 acres in 2009, also well below average: 2.64 million over the past five years, 1.96 million acres over the past ten.

Timberland prices averaged $1,395 per acre for the US in 2009, down slightly from $1,410 per acre in 2008 and well below the peak $1,780 average in 2007. Prices averaged $1,605 in the South in 2009, down from the peak $1,780 in 2008 but above the $1,500 averaged in 2007.

There were press reports this year of offerings where bids were not accepted or packages of timberland assets were quietly removed from the market. Analysts observed that fewer and smaller sales in 2009 suggest that timberland owners were not willing to sell at reduced prices this year. Looking at the sellers in each year also shows that most large forest industry holdings had been sold to private parties, TIMOs, and REITs by the end of 2007. TIMOs, REITs and private entities now trade timberland among themselves. Average transaction size dropped in the South from more than 100,000 acres in 2007 to 42,000 acres in 2008 and 26,000 acres in 2009.





Southeastern Timberland Sales				
Year	Notes	Number of acres sold	Price (US$)	Weighted Average Price/Ac
1999	20 transactions, 7 over 100,000 acres	2,768,000	$2,378,400,000	$859
2000	10 transactions, 2 over 100,000 acres	1,005,000	$958,700,000	$954
2001	24 transactions, 4 over 100,000 acres	1,114,000	$1,009,400,000	$906
2002	34 transactions, none over 100,000 ac.	1,201,000	$974,800,000	$811
2003	38 transactions, 5 over 100,000 acres	2,084,000	$1,605,900,000	$771
2004	26 transactions, 4 over 100,000 acres	1,550,000	$1,616,600,000	$1,043
2005	23 transactions, 6 over 100,000 acres	2,041,000	$2,369,200,000	$1,161
2006	20 transactions, 3 over 100,000 acres	5,355,000	$6,400,000,000	$1,195
2007	26 transactions, 9 over 100,000 acres	3,410,000	$4,386,000,000	$1,287
2008	39 transactions, 4 over 100,000 acres	1,657,000	$2,952,000,000	$1,780
2009	27 transactions, 1 over 100,000 acres	698,000	$1,119,000,000	$1,605

- The table excludes sales where number-of-acres were reported without price. This could have significantly affected average prices in 2005.
- The table also excludes The Timber Company sale/merger to Plum Creek in 2001; however, that sale more or less reinforced the average: about 4.7 million acres for $4 billion or about $851 per acre.
- The 2006 total includes International Paper's divestiture of 5 million acres to multiple buyers.
- The 2007 total includes Temple-Inland's sale of 1.55 million acres to Campbell.
- The 2009 total includes International Paper's 143,000 acre transaction with American Timberlands, announced in the 1st Quarter but still pending at year end.

Anthony FP to Molpus

In mid-November, the Molpus Group announced it had completed the purchase of about 91,360 acres of mature pine sawtimber timberland and cutting rights from Anthony Forest Products for $173.15 million (on average, $1,895 per acre). The transaction includes long term timber supply agreements for Anthony's mills in Urbana AR, Atlanta TX, and Plain Dealing LA. The acreage, located in three states, has a reputation for unusually strong sawtimber quality.

State	Acres
Arkansas	50,736
Louisiana	27,944
Texas	12,680
Total	**91,360**

Transactions in the South

Hancock Natural Resources Group made two sales in the South this quarter, both in Alabama. Hancock sold 31,500 acres to Conservation Forestry for about $34 million ($1,080 per acre) and sold 10,000 acres to Forest Investment Associates for $14 million ($1,400 per acre).

Holland Ware sold 13,000 acres to an undisclosed private entity for about $21 million ($1,600 per acre). Other transactions were pending at press time, according to press reports.

Outside the South

Cranberry Lumber of Beckley WV sold about 14,500 acres of timberland in the New River Gorge area of West Virginia in November. Approximately 10,100 acres sold through sealed bids before the live auction conducted by Woltz & Associates on November 14th. Proceeds were about $8.3 million ($825 per acre). About 1,580 acres sold in a private transaction for $2 million ($1,300 per acre) and the live auction brought an additional $1.8 million for 2,800 acres in Fayette, Raleigh and Greenbrier counties (about $660 per acre).

An Ounce of Prevention & Timber Theft

By Dustin Evans, Research Assistant, Timber Mart-South

Part of diligently managing an asset is theft protection. "Timber presents an unusual challenge," according to Tom Harris, TMS publisher, "especially to owners not accustomed to rural conditions." Urban expectations of security do not apply.

Rare but Serious Events

The potential loss of stolen timber is a low frequency, endemic risk on forested properties. Events are not always reported in news media, and sometimes only discovered months after the theft. Consequences can be serious if you happen to be the victim.

According to a 2008 study done by the Association of Certified Fraud Examiners, the forest and agriculture industries made up only 13 of the 959 total cases studied, but still reported a median loss of $450,000 dollars per case, which is the second highest of any industry. This shows how damaging the effects of each timber theft case can be for the owners. The risk of fraud on timberland is in part due to the usual rural locations of the timber asset, the absence of continual supervision, as well as the low visibility of legal consequences for violators.

Theft and Market Conditions

Theft may crop up during distressed timber markets and weak financial times. However, incidents may even increase in better times when timber becomes more valuable. Since theft may occur at any time, independent of market conditions, the best way for timberland owners and managers to prevent timber theft is to prepare in advance.

Types of Timber Theft

Timber theft can occur in multiple ways, generally categorized as physical theft or paper theft.

- Physical theft involves activities such as the unlawful taking of timber from the stump, whether it is a single tree or an entire stand; selling harvested timber to an unauthorized buyer; or under-payment possibly as a result of under-reporting harvested volumes.
- Paper theft, otherwise known as theft by deception, can mean the loss of money, land, or timber due to misrepresenting harvest volumes, timber prices, or other activity on the land.

Reducing Risk of Timber Theft

There are many ways to reduce the risk of theft on timberland prior to harvest. The following are a few of the preventative actions that landowners can take or ensure that managers provide:

- Oversight: Make sure to keep an eye on your property.
- Good neighbor policy: Get to know your surrounding neighbors and have them notify you so you can be aware when harvesting occurs on their property.
- Physical security: Limit access to your property. Maintain a properly marked boundary line.
- Local news: Be in tune with what is happening in and around your property.

- Professional aid: Consulting foresters can help with valuing, overseeing, and protecting your property.

Preventative actions taken before an actual timber sale will help make the sale much easier and more profitable for the landowner. As the time approaches to harvest timber, there are a few ways to reduce risk of theft during the harvest process. The following actions can help ensure the timber sale goes well:

- Plan: Be educated about the harvest process and basic forestry.
- Inventory: Have good internal controls for the timber sale.
- Market: Research potential timber buyers or engage the services of a professional forester to manage the sale.
- Value: Obtain accurate assessments as to what the timber is worth prior to a timber sale.
- Schedule: Know what to expect and how each logger and wood buyer handles the situation.
- Records: In a "pay as cut" sale, ensure that operators properly record and report all harvest volumes and number of loads. Timber should be documented as each trailer is loaded.

In the Event of Theft

In the event that you suspect timber theft has occurred, the first step is to collect supporting evidence. You can obtain assistance from a professional forester or the local state Forestry Commission.

Once someone has verified the occurrence of theft, reporting and further investigation of the extent of the crime can begin. Multiple southeastern states including Alabama, Arkansas, Louisiana, South Carolina, and Texas have special departments that handle timber theft. Other states use regular law enforcement channels.

The following links can help you contact a state forester or local consulting forester:

- State Forester: http://www.stateforesters.org/about_nasf#
- State Forestry Departments: http://www.forestryusa.com/state.htm
- Consulting Forester: http://www.acf-foresters.org/Content/NavigationMenu/FindaForester/MapaForester/default.htm

Resources for Landowners

Many forestry consulting firms can offer assistance to landowners in prevention and detection of theft. There are also a few companies that specialize in timber theft. Two in the southeast are:

- Dendro Resources Management in South Carolina, owned and operated by Aaron Gilland, phone (803) 438-6139 agilland@dendroresourcemgt.com
- Woodland Security Inc. in Florida, owned and operated by Tom Kazee, phone (904) 504-9489 woodlandsecurty@gmail.com

For more information about forestland management techniques, consider membership in an organization such as the Forest Landowners Association. Visit www.forestlandowners.com for membership information. See ad on page 34.

Conclusion

Many landowners do not believe that theft can happen on their land, but the risk is always present. The loss of revenue and assets can be devastating. Landowners and managers who choose to become aware of the risk and take preventative steps can drastically reduce the potential of future losses, troublesome encounters, and time-consuming litigation.

"An ounce of prevention is worth a pound of cure." Benjamin Franklin.

Timber Theft Cases in the News

Although cases of timber theft rarely hit the news, indictments were announced in two cases this quarter: one in Arkansas and one in Georgia. In addition to these cases, a report from the Alabama Forestry Commission's law enforcement division adds detail on the type and extent of recent cases.

The owner of Clemons Timber Inc. of Quitman AR was indicted in October by a federal grand jury for 65 counts of mail fraud. According to local press reports, from August 2005 through February 2007, Clemons allegedly breached its contract with Deltic Timber Co. by diverting some loads of pine saw logs harvested from Deltic tracts to the Green Bay Packaging sawmill near Menifee AR instead of delivering them to Deltic's sawmill in Ola as required by their agreement. Clemons' log truck drivers identified North Arkansas Wood Inc. (NAW), owned by a Clemons family member, as broker for the pine saw logs delivered to Green Bay. NAW received payment for the timber by mail and in turn paid Clemons Timber as owner of the wood. The El Dorado Field Office of the Federal Bureau of Investigation (FBI) and the Arkansas Forestry Commission conducted the investigation. Green Bay's payments to NAW totaled about $417,000 over the period. If convicted, Clemons' company owner could face up to 20 years in prison and a fine of up to $250,000 on each count.

Eight log truck drivers and a former scale operator were arraigned in November by the US District Court in Rome GA on charges of conspiracy to commit wire fraud at Temple-Inland's containerboard mill in Rome GA. Accusations estimated the company paid more than $4.8 million for allegedly faked timber loads between September 2004 and June 2006. The drivers cooperated with the scale operator who reportedly could make the mill's scale house computer produce two weight readings for each load and manipulated the computer to generate scale tickets for phantom timber loads. The drivers shared the fraudulent payments with the scale operator. The offense of wire fraud conspiracy is punishable by up to 20 years in prison and a fine of $250,000 per count. Three of the defendants are also accused of conspiracy to commit money laundering, which carries a similar penalty but with a fine of $500,000. This case is being investigated by Special Agents of the FBI.

Alabama Forestry Commission's law enforcement chief, Craig Hill, provided the following summary of complaints received by the AFC from October 2008 through September 2009, according to the Alabama Forestry Association:

- Total Complaints received, 197.
- Of those, 67 were found to be unfounded and settled over the phone.
- Timber trespass (Beyond jurisdiction of AFC), 28. Referred to civil court, 21. Disputes, 5. Statute of limitations expired, 1.
- Cases involving possible criminal activity, 102. Dismissed for lack of evidence, 36. Cases that appeared to be criminal, 66.
- Out of 66 complaints where evidence of criminal activity was found, 10 indictments have been made. The remaining 56 cases were resolved by the parties without prosecution.

Softwood Lumber Forecast 2010 to 2014

By Russell Taylor, International Wood Markets Group

The worst is almost over for the North American softwood lumber market. While the coming winter will likely be a tough one, the 2010 outlook predicts that there will be enough building blocks in place to allow for some much needed market improvement. Fundamentals could kick-start lumber demand and even prices.

Housing Market Recovery

An impressive list of negative factors will still hold building construction down in 2010, but it is in 2011 -- and especially in 2012 and 2013 -- that a real housing recovery is forecasted to take hold.

- Inventories of new homes and existing homes have been dropping in the US, from a peak of 10-12 months of supply in 2008 down to 7.5 in September 2009. It needs to retreat to a more normal 4 months supply.
- US single family home prices peaked in 2006 and have since seen one of the most prolonged declines in US history, stabilizing in early 2009. Prices need to bottom before homebuyers regain confidence and for home sales to begin increasing.

The forecast through 2014 incorporates the expected housing market rebound based on steady immigration, demographics, and growth in demand for housing. An improved economy and financing should allow markets to return to historically normal levels.

- The Wood Markets Group analysis indicates that a slower recovery is expected initially, with housing starts in 2010 moving higher to the 700,000 unit range from about 575,000 units in 2009.
- However, a looming deficit in new single-family homes will eventually require a significant surge in US housing starts. Total starts are expected to exceed 1.5 million units by 2013 -- back to more "normal", long-term housing start levels.

The estimated tripling of current single-family home construction to the longer-term trend of 1.2 to 1.3 million units will become a reality. The four-year timetable projects both recovery of US Gross Domestic Product and reduction of accumulated slack in the labor market.

Lumber Price Outlook

Wood Markets expects many wild-cards to affect lumber prices in each year of the five-year forecast. A big element impacting the lumber price outlook will be the industry's schedule or strategy for putting curtailed or even closed sawmill production back online, not to mention the log inventories companies can, or are willing to, build.

How it balances or doesn't balance with lumber demand will show up in how lumber prices move in the next five years. But by 2012 and especially 2013, when demand should outstrip supply at various stages, stud and dimension lumber prices should climb to average an incredible US$200 per thousand board feet (mbf) or so higher than 2009 levels!

The prospects of higher prices will be welcomed by all players in the North American lumber sector, but cost pressures such as rising log costs may mean few major windfalls -- but modest profits.

Lumber Production Outlook

From a peak of 28.6 billion board feet (bbf) of lumber consumed in new US residential housing construction in 2005, lumber demand plummeted to about 6.9 bbf in 2009.

- By 2013, and, in using what appears to be a conservative housing forecast, lumber consumption in new housing is expected to rebound to over 19 bbf in 2013 -- a huge gain but still well below the peak of 2005.
- Total US lumber consumption is forecast to increase from 32.8 bbf in 2009 to over 50 bbf in 2013 -- a 50+ percent increase from 2009.

US Softwood Lumber Production Recovery			
	2005	2009	2013
Housing Starts (US) million units	2.07	0.58	1.54
Lumber Production (NA) bbf	75.18	43.26	62.56
Lumber Production (South) bbf	18.99	11.96	17.54
Lumber Operating Capacity Rates (NA)	94%	62%	89%

- All regions in the US and Canada are expected to rebound with an average annual increase of about 10 percent expected from 2009 to 2014 as sawmill operating rates improve from dismal levels averaging just 50 percent in 2009 to near 90 percent levels by 2013.

The Wood Markets 2010 forecast for softwood lumber outlines a number of structural changes occurring in lumber supply dynamics in North America. In particular, Canada's market share in the US has decreased and is expected to drop even further by 2020. This will provide some much needed good news for producers in other North American regions, as the US South and the US West are expected to be the major beneficiaries of these changes in Canadian supply dynamics.

The table above shows the changes in housing starts and lumber production 2005 to 2009 and then projected for 2013. The operating rates in 2009 were based on a curtailed North American capacity of 70 bbf, compared to 2005 capacity of 80 bbf.

Effects in the South

Nearly half the US housing starts are in the South. The region's population is expected to grow over the next five years, so strong local markets will continue. Additional indicators for southern pine lumber demand include species properties that accept wood preservation treatment well, and an increasing supply of southern pine sawlogs.

To contact Russell Taylor, phone 604-801-5996 or e-mail retaylor@woodmarkets.com. International Wood Markets Group (www.woodmarkets.com) comprises wood products market and business consulting services for industry and government clients. The firm maintains a global database and also offers numerous industry or market specific multi-client reports, including its landmark *Wood Markets Monthly International Report*.

Battling Through Business Adversity

In the December 2009 issue of Hatton Brown's *Southern Lumberman*, editor Dan Shell looked back to the first *SL* issue published in December 1881. A.E. Baird wrote in his "Salutatory" opening column that he had become convinced "a reliable journal devoted to the lumber interests (of the South) is a necessity."

On their 128th anniversary, *SL* still provides an interesting perspective on the forest industry in the South. In addition, each issue contains a 100-

years-ago retrospective that keeps us in touch with what has gone before.

Happy birthday, *Southern Lumberman*!

Openings & Closings

Conditions in the pulp and paper industry continued to be more favorable than in the solid wood products industry. Tied to housing markets and building construction, lumber and panel production continue to be severely curtailed.

Pulp & Paper:

Of the eight pulp mill announcements in the South this quarter, two were mill closures: I-P closing mills at Franklin VA and Pineville LA. Two companies announced plans to reconfigure plants to produce fluff pulp and three announced capital projects to save energy. One restarted production at a curtailed facility. For more on pulp and paper markets, see "Pulp and Paper Indicators" on page 7.

Domtar announced in October that it plans to convert its entire Plymouth NC (NC R2) pulp and paper mill to fluff pulp production. The company had previously announced permanent shut down of an uncoated free sheet machine at the mill and the new plan includes permanently shutting down the facility's remaining paper machine. New investment in the plant will expand annual fluff pulp capacity from 170,000 tons to 490,000 tons, but reduce total annual capacity by about 10 percent. The net affect of the machine shut down and pulp conversion will reduce staff from 530 to 360 employees. The company expects to complete the reconfiguration in the 4th Quarter of 2010.

Georgia-Pacific plans to invest $15 million to modify and upgrade the No. 2 paper machine at its Brewton AL (AL R2) linerboard mill. The company had announced a boiler upgrade at the mill last quarter and expects to complete installation of the new equipment in the 3rd Quarter of 2010. The facility has annual pulp capacity of 464,000 tons. G-P purchased the mill from Smurfit-Stone Container in 2006. G-P also restarted production late this quarter on a hardwood pulp line as well as its No. 3 machine, idle since January, at its Cedar Springs GA (GA R2) linerboard mill.

International Paper announced on October 22nd that it would permanently close its paper mill in Franklin VA (VA R2), containerboard mill in Pineville LA (LA R1) and containerboard mill in Albany OR. The company also announced the idle No 3 machine at its containerboard mill in Valliant OK would be permanently shut down. Capacity closures began in November with the No. 6 machine at I-P's paper mill in Franklin. I-P expects to shut down the three remaining machines in early 2010. The Pineville mill shut down in December; however, the mill will still receive and store both pine and hardwood for use at other I-P facilities for an undetermined period.

Location	Annual Capacity tons	Pulp product
Albany OR	290,000	unbl kraft pulp
Franklin VA	578,000	unbl kraft pulp
Pineville LA	401,000	unbl kraft pulp
Valliant OK	700,000	unbl kraft pulp
Valliant OK	300,000	semichem pulp

After the permanent closures, I-P's North American paper and board capacity will be reduced by 2.1 million tons to approximately 10 million tons of containerboard capacity, 2.6 million tons of uncoated freesheet capacity, and 1.7 million tons of coated paperboard capacity. The closures affect 1600 employees: 1100 in Franklin, 230 in Pineville, and 270 in Albany.

Packaging Corporation of America (PCA) announced capital projects at two of its linerboard mills this quarter. The company will make recovery boiler, turbine generator and drier improvements at its Valdosta GA (GA R2) facility. PCA will also rebuild two recovery boilers and install a new turbine generator at its Counce TN (TN R2) facility. The two projects will reduce fuel and electricity purchases at the two mills. On completion, the Valdosta mill will use only internally generated wood waste and black liquor for energy. Start up of Valdosta's new recovery

boiler is scheduled for October 2011. The new unit replaces three existing boilers installed in the 1950s to 1970s and will reduce air emissions. The Valdosta mill has annual pulp capacity of 430,000 tons and Counce has 830,000 tons of capacity.

Parsons & Whittemore plans to reconfigure its Perdue Hill Alabama Pine Pulp mill (AL R2), and convert as much as half of pine pulp production to fluff pulp. The facility's annual pine pulp capacity is about 550,000 tons.

Wood Products: Softwood Sawmills

Four southern pine sawmills announced additional curtailments this quarter. While all cited poor market conditions for their decision to close, locations in the West also mentioned wet weather and difficult logging conditions. Completion of a capital project at a New South sawmill shows that wood products operators are also making improvements and upgrading equipment, even in hard times. For solid wood product prices, see "Lumber and Panel Indicators" on page 5.

Anthony Timberlands reduced production at its Bearden AR (AR R1) southern pine sawmill to one day per week in October for an indefinite period. The company cited both wet weather and poor lumber market conditions for the decision. The sawmill has annual capacity of 175 mmbf. Anthony made a similar curtailment at its Malvern AR (AR R1) 120 mmbf capacity sawmill last quarter.

Hankins Lumber shut down the sawmill and planer at its Grenada MS (MS R1) facility the week of November 2nd due to poor market conditions with plans to re-start in March 2010. The company had curtailed production to a 20 hour week in early 2008 at the 120 mmbf capacity sawmill and took market-related downtime for about a month last quarter.

New South Lumber, a subsidiary of Canfor, held a ribbon cutting ceremony in late October for the completion of a capital project at its southern pine sawmill in Darlington SC (SC R2). The mill has annual capacity of 100 mmbf. The company replaced and updated equipment at the sawmill to increase its efficiency and productivity.

Shuqualak Lumber shut down its 125 mmbf capacity sawmill in Shuqualak MS (MS R1) in mid-October citing extremely wet weather and poor lumber market conditions. By early November, the sawmill had resumed limited production, but levels remain dependent upon the ability to rebuild log inventory.

Troy Lumber took market-related downtime in late November at its 100 mmbf capacity sawmill in Troy NC (NC R2).

Wood Products: OSB & Panels

Four additional plywood plants and two OSB plants took market-related downtime this quarter. In addition, Georgia-Pacific permanently closed another of its plywood plants: Fordyce AR.

Since 2000, 14 of the South's 52 plywood plants have permanently closed. Most of the closed plants were built before 1975. The newest plant to be closed, G-P's Logansport LA (LA R1) plant built in 1979, closed early in 2008.

State	No. Plants Closed
AL	2
AR	3
GA	1
LA	4
TX	4
Total	**14**

Boise Cascade took market related downtime at its two southern pine plywood plants in Louisiana this quarter. Its Florien (LA R1) plant took downtime the full Thanksgiving week in November, and its Oakdale (LA R1) plant shut down December 1st for an indefinite period. The company also laid off workers at its Alexandria engineered wood products plant in Lena LA (LA R1).

Georgia-Pacific curtailed two additional southern pine plywood plants and an oriented strand board (OSB) plant in the South this quarter:

- Grenada MS (MS R1) OSB plant shut down beginning in November for about six months, affecting about 80 employees.

- Louisville MS (MS R1) plywood plant shut down beginning in October for an indefinite period, affecting about 60 employees. The company took downtime at the plant in December 2008, restarting in 2009, and closed a chemical plant in Louisville in 2008 to consolidate production in Taylorsville.
- Whiteville NC (NC R2) plywood plant shut down for about six months beginning in early November, affecting about 425 employees. G-P took market related downtime at the plant in December 2008 as well.

G-P's Fordyce AR (AR R1) plywood plant shut down, beginning at the end of October, initially for about six months but the closure was then made permanent in December, affecting about 340 employees. The OSB plant at Fordyce continued to operate.

Fordyce is the oldest pine plywood plant in the South, built in 1964. The company said that it had at least two more cost-effective plants nearby and announced plans to restart its second oldest plywood plant, No. 1 at Crossett AR (AR R1), although the timetable was not set. That plant has been idle since 4Q 2007 due to poor market conditions. G-P plans to move selected equipment from Fordyce to Crossett as well as offer positions to some Fordyce employees.

Roy O Martin took a two-week shutdown beginning December 21st at its Oakdale LA (LA R1) OSB plant for scheduled maintenance.

The South's Softwood Sawmill Capacity: Losses & Changes

The North American softwood lumber industry had about 71 billion board feet (bbf) of capacity as of June 2009. According to a recent report by Henry Spelter of the US Forest Service[1], industry has permanently shut down about 13 percent of production capacity since the end of 2006.

The 10 bbf in lost capacity volume is the sum of estimates for 150 sawmills in the US and Canada

[1] Spelter, Henry, D McKeever and D Toth. Profile 2009: Softwood Sawmills in the United States and Canada. USDA Forest Service, Madison WI. Research Paper FPL-659. October 2009.

that have been permanently closed. North America has 875 remaining sawmills in operation.

Mill Closures in the South

Of the closed mills, 24 were in the TMS reporting area, affecting 14 of our 22 market regions[2]. Weyerhaeuser's closure of its Wright City OK sawmill in early 2009 also affected timber consumption in adjacent TMS regions.

Softwood Lumber Sawmills Closed 2007-2009

Company Name	Location	Cap. 000 mbf	Reg.
McKinney Lumber	Muscle Shoals	5	AL1
AbitibiBowater	Albertville	115	AL1
Chapman Forest Products	Chapman	60	AL2
M.C. Dixon Lumber	Eufaula	115	AL2
Weyerhaeuser	Pine Hill	170	AL2
Buddy Bean Lumber	Hot Springs	25	AR1
Georgia-Pacific	El Dorado	110	AR1
Potlatch	Prescott	180	AR1
Georgia-Pacific	Palatka	80	FL1
Sherrod Lumber	Greenville	10	FL2
Mount Yonah Lumber	Cleveland	10	GA1
Evans Lumber	Sylvania	5	GA2
Little Suwannee Lumber	Homerville	10	GA2
Weyerhaeuser	Taylor	85	LA1
Hood Industries	Coushatta	110	LA1
Georgia-Pacific	Springhill	115	LA1
Georgia-Pacific	Roxie	65	MS2
Columbus Lumber	Brookhaven	80	MS2
Brittain Lumber	Statesville	5	NC1
Georgia-Pacific	Ahoskie	60	NC2
F.B. Davis Sawmill	Richland	5	SC1
International Paper	Franklin	135	VA1
Kirk Lumber	Suffolk	5	VA2
Gibson Lumber	Gretna	10	VA2
Total		**1,570**	**SE**

The South had about 18.7 bbf of softwood lumber capacity in 2009. Shut downs have removed an estimated 1.6 bbf, or about 8 percent of 2006 capacity.

Alabama Region 2 lost the most capacity, about 345 million board feet (mmbf) on an annual basis with three mill closures. Arkansas Region 1 lost three mills as well, with a total estimated loss of 315 mmbf capacity. Louisiana Region 1 ranked third, losing three mills with a total estimated loss of about 310 mmbf. These three regions represent about 62 percent of lost capacity in the South.

Top Ten Sawmills in the South

Six of the top ten sawmills in the South are operated by Weyerhaeuser. The other four mills are operated, one each, by Westervelt, Jordan Lumber, Tolleson Lumber, and West Fraser Timber. The Spelter study reported that these mills had approximately the same capacity in 2009 as at the end of 2006.

Three of the top ten sawmills were in North Carolina Region 2, with two each in Arkansas Region 1 and Mississippi Region 1. Alabama Region 1, Georgia Region 2 and Mississippi Region 2 had the other three mills, one each.

Top Ten Softwood Sawmills - South

Company Name	Location	Cap. 000 mbf	Reg.
Weyerhaeuser	Dierks	300	AR1
Westervelt	Moundville	250	AL1
Weyerhaeuser	Ayden	250	NC2
Weyerhaeuser	Plymouth	250	NC2
Weyerhaeuser	Fernwood	240	MS2
Weyerhaeuser	Bruce	230	MS1
Weyerhaeuser	Philadelphia	230	MS1
Jordan Lumber	Mt. Gilead	225	NC2
Tolleson Lumber	Preston	215	GA2
West Fraser Timber	Huttig	215	AR1
Total		**2,406**	

Top Ten Regions in the South

The top ten softwood lumber producing regions in the South remained the same between the end of 2006 and mid-2009, but ranks shifted slightly. Georgia Region 2 moved up from No. 2 to rank No. 1. Arkansas Region 1 now ranks No. 2 following three mill closures. Alabama Region 2, which had ranked No. 5 in 2006, fell to No. 8 due to its three mill closures.

[2] The report did not include the two TMS regions in Tennessee.

Top Ten TMS Regions Ranked by Softwood Sawmill Capacity				
Rank	TMS Reg.	Cap. 000 mbf	No. Mills	Avg. Mill Cap.
1	GA2	2,866	32	90
2	AR1	2,519	22	115
3	NC2	1,951	29	67
4	SC2	1,579	21	75
5	MS2	1,430	21	68
6	TX2	1,334	19	70
7	AL1	1,221	27	45
8	AL2	1,152	21	55
9	MS1	996	9	111
10	LA1	821	7	117
	Total Top Ten	**15,869**	**208**	**76**
	Total SE	**18,731**	**283**	**66**

Top Ten Producers in the South

The top ten softwood producing companies in the South operate roughly half the South's softwood lumber capacity. The top ranked companies remained the same in 2009 as in 2006. The No. 1 and No. 3 ranked companies switched places in 2009. West Fraser kept the same number of sawmills operating while Weyerhaeuser closed two. Georgia-Pacific remained No. 2 even though it closed five sawmills.

Top Ten Softwood Lumber Producers in South				
Rank	Company Name	Cap.000 mbf	No. Mills	Avg. Mill Cap.
1	West Fraser	2,140	15	143
2	Georgia-Pacific	1,912	20	96
3	Weyerhaeuser	1,731	11	157
4	Temple-Inland	1,017	6	169
5	Gilman	611	6	102
6	Canfor	561	4	140
7	Jordan Lumber	385	2	193
8	Rayonier	376	3	125
9	Tolleson Lumber	365	2	183
10	Joe N Miles	330	2	165
	Total Top Ten	**9,428**	**71**	**133**
	Total SE	**18,731**	**283**	**66**

Capacity vs. Production

Softwood lumber production in the South was about 11.1 bbf in 2009, according to estimates of the Southern Forest Products Association (SFPA). Based on the above capacity study, curtailments have cut operating rates in the South to approximately 60 percent this year. For a forecast of lumber production 2010 through 2014 by Wood Markets International, see the article on page 23.

Summary of Projects 2008 vs. 2009						
Plant type	**No. Plants End of 2008**	**Annual Wood Consumption 000 tons**	**Net No. Plants added in 2009**	**Annual Wood Consumption 000 tons**	**Total Plants 2009**	**Annual Wood Consumption 000 tons**
Pellets (proposed)	9	3,000	+9	2,900	18	5,900
Pellets (started up)	6	2,860	+1	-950	7	1,910
Cogen (proposed)	25	15,000	+15	6,000	40	21,000
Cogen (started up)	6	2,050			6	2,050
C. Ethanol (proposed)	16	4,000	-2		14	3,700
Total	**62**	**26,910**	**23**	**7,950**	**85**	**34,560**

Biofuel & Bio-energy

At the end of 2009, the number of plants proposing to produce bio-energy products from wood and wood residue in the US South grew from 62, of which 12 were already in production, to 85. Two new plants started up, both wood pellet manufacturers, but one operating pellet plant shut down due to financial distress.

Of 11 new pellet projects proposed in 2009, two were put "on hold" by year end. While 15 new cogeneration projects were announced, the location of six facilities remains undisclosed or undecided. No new ethanol plants were proposed, although two that had been proposed were put "on hold".

Wood consumption for the plants already in operation totaled about 4 million green tons in 2009. Uncertainty remains regarding the plants still in planning or under construction, which could represent more than 30 million green tons of additional wood consumption.

Bio-Energy Projects in the South

Among seven new project announcements in the South this quarter, five were wood fuel pellet plants and two were cogeneration energy plants. One of the proposed pellet plants is planning to have a cogeneration component.

Wood Fuel Pellets

Green Circle Bio announced plans to build a plant similar to its current facility in Cottondale FL (FL R2). The company is considering sites in Georgia and Mississippi for a new 550 ton per year plant. Site selection should be complete by April 2010 and start-up for the plant is planned for spring 2011. As with its existing facility, Green Circle targets new pellet production for European markets.

New Bio-Energy Projects - US South					
Company	**Location**	**State/ Region**	**Annual Capacity**	**Annual Wood Consumption**	**Startup**
Fuel Wood Pellets			**000 Tons**	**000 Tons**	
Lee Energy Solutions	Crossville	AL1	75	150	running
NexGen Biomass	El Dorado	AR1	250	500	n/a
Green Circle Bio	TBA	GA, MS	500	1,000	2011
Magnolia BioPower	Brantley Co.	GA2	1,000	2,000	2012
Vega Biofuels	Tifton	GA2	n/a	n/a	n/a
Cogeneration/Biomass			**Megawatts**	**000 Tons**	
ADAGE	Gretna	FL2	50	550	2012
Gulf Power	Panama City	FL2	n/a	n/a	n/a
Magnolia BioPower	Brantley Co.	GA2	30	300	2012

Lee Energy Solutions started up a new fuel wood pellet plant in Crossville AL (AL R1) in December. The company expects to achieve full operations in early 2010. Press reports estimated production capacity at 75,000 tons of pellets and a target market of local poultry growers and homeowners.

Magnolia BioPower LLC announced plans for a three-phase bio-energy plant in Brantley County GA (GA R2). When finished, the project will produce one million tons of wood pellets and 30 Megawatts of biomass-generated electricity. Start-up is planned for spring 2012.

NexGen BioMass plans to locate a new wood fuel pellet plant at the site of the closed Georgia-Pacific sawmill near El Dorado AR (AR R1). The plant will use pine pulpwood furnish and start up in four phases, with construction to begin as soon as permits are secured. The plant will be similar to the 250,000 ton plant proposed by Phoenix Renewable Energy for Camden AR and will target international markets.

Vega Biofuels announced in November that it was accepting construction bids for a new wood pellet manufacturing facility in Tifton GA (GA R2). Mill capacity was cited as "several hundred thousand metric tons".

Cogeneration

ADAGE, a joint venture between AREVA and Duke Energy Corp., announced its selection of a site for another 50-Megawatt biomass-fueled power plant in Florida. The plant in Gretna, Gadsden County, (FL R2) is the second Adage project announced for Florida in 2009, the first being a similar plant located in Hamilton County (FL R1). The company expects to begin construction on both projects in 2010 with start-up in about two years.

American Renewables LLC and Gainesville Regional Utilities (GRU) presented plans to the Alachua City Commission for their proposed 100-Megawatt biomass-fueled power plant at GRU's Deerhaven Generating Station just outside Alachua (FL R1). While commissioners expressed concern over trucking traffic, GRU officials cited road capacity studies and plans that would limit impact. Construction on the project, announced in 3rd Quarter of 2008, is scheduled to begin in 2010, with startup in late 2013.

Aspen Power received approval from the Texas Commission of Environmental Quality in October for an air quality permit for its 50-Megawatt biomass-fueled power plant in Lufkin TX (RM R2). Aspen agreed to add controls on its boilers to further lower emissions in response to local opposition to the plant and resumed construction on the facility, which should now start up in 2010.

Biomass Gas & Electric (BG&E) announced progress in permits and financing for its 45-Megawatt biomass-fueled power plant in Port St. Joe FL (FL R2). The project, called Northwest Florida Regional Energy Center (NWFREC), could start up as early as summer, 2011.

Gulf Power Co. announced plans to convert a coal-burning power plant unit at its facility near Panama City FL (FL R2) to use biomass. The plant currently has four units, two of which are coal-burning. The company has not announced when construction will commence or what equipment will be used. Gulf Power is already buying 11 Megawatts from Bay County's municipal waste incinerator and will build a facility at the Perdido Landfill to use methane gas for energy.

The Savannah River Site (SRS), operated by the US Department of Energy near Aiken SC (SC R2), broke ground on a new Biomass Cogeneration Facility on December 1st. The new facility will replace a coal powerhouse and oil-fired boilers. The plant will produce about 20 Megawatts of electric power and 240,000 pounds per hour of steam. The SRS expects the facility to start up in December 2011.

Southern Power, a subsidiary of the Southern Co., broke ground on its 100-Megawatt biomass fueled power plant in Sacul TX (TX R2). The company purchased the plant, previously Nacogdoches Power LLC, from American Renewables LLC in October and expects the plant to begin commercial operations in summer, 2012. Southern

Power also stated that it expects to covert up to six existing power plants to biomass power. Plant Mitchell near Albany GA (GA R2) received permission from the Georgia Public Service Commission for its conversion in March. However, the company recently announced that it would delay the conversion project indefinitely until applicable EPA rules become better defined. Southern is also studying the feasibility of converting its Plant Scholtz, similar in size to Plant Mitchell and located near Sneads FL (FL R2).

Ethanol/Liquid Biofuels

Raven Biofuels announced its selection of a site in Ackerman MS (MS R1) near the Red Hills Power Plant for its planned 33-million gallon per year cellulosic ethanol biorefinery. The location could provide access to steam and power as well as benefits due to strong state incentives. The plant will produce about 21 million gallons per year of ethanol and an additional 12 million gallons per year of related specialty chemicals.

Xethanol, now Global Energy Holdings Group, filed for Chapter 11 bankruptcy protection in November. The company seeks to reorganize along with four subsidiaries. Global Energy plans to continue an orderly liquidation of its non-core assets, having exited its legacy ethanol business in 2008. The company had previously announced a 50-million gallon ethanol project in Augusta GA (GA R2) and a 5-million gallon project in Spring Hope NC (NC R2) as well as a 20 Megawatt biomass-fueled power generation project in Ball Ground GA (GA R1).

BCAP Update

The USDA's Farm Service Agency (FSA) continued to release updated lists of conversion facilities accepted into its Biomass Crop Assistance Program (BCAP). From about 80 facilities nation-wide in early October, about 23 in the South, the list grew to more than 300 in mid-December. About 115 were in the South, varying from two in Tennessee to 22 in Mississippi.

Rules and funding for the program remain uncertain. The FSA expects to publish the new rules to be in effect by April 1st 2010. While total funds to biomass suppliers for energy wood delivered to the BCAP facilities for the two years of the program have not been allocated, FSA agents confirmed that the program plans to distribute $517 million in matching funds for deliveries from October 1st 2009 through March 31st 2010. Matching funds last quarter, from July through September 30th 2009, were $25 million. The new rules should also define the details and funds available for the biomass crop part of the BCAP program.

Matching funds, up to $45 per dry ton, could have a different affect on wood prices at pulp and paper mills than at energy product mills, such as those that manufacture wood fuel pellets. For example, about 10 to 15 percent of roundwood delivered to pulp mills is used to produce energy, and therefore eligible for the BCAP program, while roundwood and chips delivered to pellet manufacturers may be 100 percent eligible materials. By year end, effects on wood prices were still limited.

Black Liquor (Alternative Fuel) Credits

US kraft pulp producers benefited from the alternative fuel tax credit in 2008 and 2009 by mixing alternative fuels using their black liquor output. Credits totaled approximately $3.6 billion in the first three quarters of 2009, according to industry analysts, and as much as $8 billion for 2008-2009. The program provided $0.50 per gallon, an extra incentive in the current distressed economy for qualified companies to maintain operating rates. Competitors opposing the program included non-US kraft pulp producers and manufacturers which use recycled pulp.

The tax credits ended December 31st but speculation that the credit would continue into 2010 lasted until late-November. The Internal Revenue Service (IRS) had ruled that black liquor was eligible for alternative fuel credits, subject to Environmental Protection Agency (EPA) fuel standards, but the EPA had not classified it as a fuel. A US House bill to make the credit

permanent failed to gain support and an opponent inserted a provision into the House health care reform bill that specifically disqualified black liquor for the continuing biofuel tax break.

Black liquor had already been excluded from the eligible materials list for BCAP.

In October, the Canadian federal government announced 24 companies had qualified for Green Transformation Credits, a program providing CAN$0.16 per liter (US$0.58 per gallon) of black liquor up to CAN$1 billion to Canadian pulp manufacturers. Black liquor produced between January 1st and December 31st 2009 is eligible and companies have until 2012 to claim the benefit. Proceeds must be spent on capital projects that improve energy efficiency.

DOE & USDA Biofuel Project Awards

US Department of Energy Secretary Chu and US Department of Agriculture Secretary Vilsack announced selection of 19 advanced biorefinery projects to receive up to $564 million in awards from the American Recovery and Reinvestment Act of 2009 (AKA the Stimulus).

Up to $483 million will go to fourteen pilot-scale and four demonstration-scale biorefinery projects across the country. One of the pilot plants is in the South (Texas) but is not wood-related. Of the demonstration scale plans, three are in the South, one of which is wood-using: Enerkem in Pontotoc MS (MS R1). The remaining $81 million will focus on accelerating the construction of a biorefinery project previously awarded funding: Bluefire in Fulton MS (MS R1). Collectively, these projects will be matched with more than $700 million in private and non-federal cost-share funds, for total project investments of almost $1.3 billion.

BlueFire Ethanol Fuels Inc. received US Department of Energy (DOE) approval to relocate its second biorefinery previously planned for California to Fulton MS (MS R1). Challenging economic and regulatory conditions in California convinced the company to relocate the project to northeastern Mississippi. The plant will produce approximately 18 million gallons of ethanol per year. BlueFire had a $7 million grant from the DOE for the first phase of building the Fulton facility. In December, the DOE increased its funding to $88 million.

Enerkem Inc. announced its selection by the DOE to receive a $50 million grant for construction and operation of its planned facility in Pontotoc MS (MS R1). The plant will produce 10 million gallons of ethanol annually as well as related specialty chemicals. Furnish will be sorted municipal solid waste and wood residues.

Study: *Bioenergy Update: A Biofuels/Biorefinery Development Report Card, Year: 2009.* Bowyer, J.J. et al. Dovetail Partners, Inc.

This report examines the current generation of biofuels and biorefinery development. Updating a

report done in March 2006, the study surveys global, North American, and American Mid-west use of biomass-derived energy and related trends. Technological progress encouraged optimism that at least portions of the biorefinery concept are not far from commercial application.

http://www.dovetailinc.org/reports/pdf/BlandinIRRBioenergyPaper082907yf.pdf

Biomass & Bio-energy in the News

Plum Creek Timber Co. told analysts that biomass represents a growing opportunity for the company. In the company's 3rd Quarter conference call, president and chief executive officer Rick Holley said Plum Creek had grown deliveries of biomass to about 650,000 tons per year in 2009. Stumpage value for biomass averaged about $5 per ton. One component of future growth is the Biomass Crop Assistance Program (BCAP). The company estimates that its forest operations could generate about 3 million tons per year of biomass, but in addition to that, if converted for fuel, all or part of pulpwood and chip deliveries could also qualify for BCAP matching.

Big Oil is now interested in biofuel, argued a *Wall Street Journal* article in October that heralded ExxonMobil's purchase of algae-to-fuel producer, Synthetic Genomics Inc. Alliances in wood-based energy include BP with Verenium in cellulosic ethanol, Chevron's with Weyerhaeuser as well as Royal Dutch Shell's with Iogen. Caution still abounds, however, because industry analysts still do not know if biofuels can make economic sense.

New Energy Finance, purchased by Bloomberg in December of 2009, reports Carbon-related news as well as news for other alternative forms of energy. http://carbon.newenergyfinance.com/

FOEX Ltd. began reporting Nordic pellet fuel prices in November. Quoted prices are in Swedish Kroner or Euros per MegaWatt hour (unit of energy) not per ton. The website also provides a chart with data history since 2007. http://www.foex.fi/bioenergy/

Restructuring

Weyerhaeuser finally announced its long-anticipated decision to convert to a real estate investment trust. AbitibiBowater and Smurfit-Stone Container continued restructuring efforts this quarter, but remained in Chapter 11 protection. Three sawmills changed hands in two separate transactions, and there were updates on previously-announced international mergers and acquisitions.

Weyerhaeuser REIT Announcement

On December 15th Weyerhaeuser announced that its board of directors had approved the company's conversion from a traditional corporation to a real estate investment trust (REIT). President and chief executive officer Dan Fulton said the conversion would improve the company's competitive position in its timberland business. The board did not set a date for conversion, but it may occur in 2010. Timing will be determined by the state of the economy, changes in tax policy, and distributions of earnings under tax laws for REIT election.

The company said no further divestitures of existing businesses will be needed for the conversion. Weyerhaeuser sold its white paper business to Domtar in 2007, and sold its containerboard and packaging business to International Paper in 2008. In November, Weyerhaeuser announced the sale of two idle facilities in Canada to C&C Wood Products of Saskatchewan: the Carrot River Sawmill and Hudson Bay Plywood Mill. C&C is a 32-year old company that specializes in wood paneling, specialty boards and wood pellets. The related Pasquia-Porcupine Forest Management Agreement (FMA) will be co-operatively run by both C&C and Weyerhaeuser to supply these two mills as well as its Hudson Bay OSB plant.

On December 7th the company announced its agreement to sell its Warrenton OR lumber mill to Hampton Affiliates for an undisclosed amount. Press reports in October suggested that

Weyerhaeuser was again close to selling its idled pulp mill in Cosmopolis WA but no announcement occurred this quarter.

Other Changes

AbitibiBowater remains in Chapter 11 bankruptcy protection. The company announced asset sales this quarter and implemented changes announced last quarter. In November, the company announced the sale of its closed Belgo pulp and paper mill in Shawinigan QB to Recyclable Arctic Beluga, Inc. for an undisclosed price. On December 9th, the company closed previously-announced sale of its interest in Manicouagan Power Company, a 335 Megawatt hydroelectric facility in Quebec to Hydro-Quebec. Proceeds of C$615 million (US$592 million) will be used as directed by the Superior Court of Quebec, including repayment of some outstanding debtor-in-possession credit. Among changes in operations, Coosa Pines AL (AL R1) shut down a machine last quarter and laid-off about 90 employees.

The former Columbus Lumber Co. in Brookhaven MS (MS R2) sold in two parts this quarter. The sawmill closed last quarter due to poor financial and market conditions. In November 2009, Rex Lumber LLC of Graceville FL purchased the sawmill, including a 145-acre site, from the bank for an undisclosed price. Rex, which owns a north Florida sawmill and wood treatment facility as well as timberland, did not reveal its plans for the facility. Then, in December, Great Southern Wood Preserving Inc. (GSWP) purchased the wood treatment portion of the site from the new owners as well as a nearby Philips mill for production of outdoor products. GSWP has eleven existing wood treatment plants, mostly in the South.

Gulf Lumber Co. of Mobile and Scotch Lumber Co. of Fulton AL announced their merger and creation of Scotch & Gulf Lumber LLC. Plans include refurbishing the Scotch 130 mmbf per year Fulton sawmill (AL R2) to make trusses and lumber for export. Gulf's two existing sawmills will continue operations in Mobile and Jackson (AL R2), with annual capacity of 115 and 60 mmbf respectively. The new company will be based in Mobile.

Kapstone Paper and Packaging Corp. of Northbrook IL announced that the company's stock began trading on the New York Stock Exchange (Ticker KS) on January 4th 2010. The company's stock will continue to trade on the Nasdaq exchange (Ticker KPPC).

Smurfit-Stone Container Corp. filed a plan of reorganization on December 1st that affected both US and Canadian operations. The company now aims to emerge from Chapter 11 bankruptcy protection in early spring 2010. On December 22nd, chairman and chief executive officer Patrick J. Moore announced that he intends to retire within one year following the company's emergence from bankruptcy. Moore will continue to serve on the board of directors.

International Restructuring

Fibria Celulose, formed by the merger of Aracruz Celulose and Votorantim Celulose E Papel, announced and closed the sale of its Guaíba Unit in RioGrande do Sul, Brazil to Empresas CMPC of Santiago, Chile. Assets sold included a pulp mill, paper plant and 212,000 hectares (524,000 acres) as well as licenses for a project to expand the pulp mill's capacity from 450,000 tons to around 1.5 million tons per year. The transaction price was US$1.43 billion.

Gunns Ltd and Elders Ltd received regulator's approval for a revised proposal in which Gunns will purchase the processing division of Elder's ITC Timbers. The revision excluded ITC's interest in SmartFibre, a woodchip joint-venture with Forest Enterprises Australia. ITC has four hardwood-processing facilities, all in Australia. See TMS Market News, 3rd Quarter 2009 for more details.

Stora Enso and Arauco announced on October 16th that they completed the acquisition of the majority of Grupo ENCE's operations in Uruguay. The previously-announced joint acquisition on a 50/50 basis includes approximately 130,000 hectares (321,000 acres) of owned land and

plantations, 6,000 hectares (14,800 acres) of leased land and other operations in the central and western areas of Uruguay. The transaction value was US$344 (EU€ 253) million, including US$33 million of assumed debt.

Other News

Electronic Paper

Reduced paper demand over the past few years has translated into lower production. According to the American Forest & Paper Association (AF&PA), annual US paper production has fallen from 46.0 million tons in 1999 to an estimated 33.8 million tons in 2009. While newsprint has grabbed the news for its lost 4 million tons of production (now less than half of that in 1999), printing and writing papers have taken an even greater hit. At 19 million tons in 2009, the US has had only about 71 percent of 1999 production this year; that is, 7.8 million tons less paper.

Bank of America summarized its own trends, and predicted continued transition from paper to electronic transfers and transactions this quarter. Over the past six years, BoA has reduced internal paper consumption by 50 percent through using electronic versions of documents as well as web-based communications. The company estimates paper use will be cut in half again over the next four years. Lower cost in paper, document storage, and transportation is not the only incentive to digitize paper documents. The company cited increased security and better customer service as well as shorter transaction times that increased productivity.

Companies have announced "paperless" initiatives and increasingly company payrolls make all or part of employee wage payments electronically.

Electronic books or e-readers, beginning with Amazon's Kindle introduced in November 2007, have increased in variety and function while prices have dropped. In October, the *Wall Street Journal* described a "price war" between book sellers Amazon, Wal-Mart and Target on popular hardcover books with store sales for the latter two spreading to internet sales. Online sales offered cuts in delivery fees. Price cuts sparked concern among authors and publishers that they may be asked to reduce their prices. Publishers were encouraged by new opportunities for digital books. However, they also delayed the release of digital versions of some popular books to prevent less-expensive e-books from reducing sales of hardcover editions.

New equipment including interfaces with existing computing hardware and the internet suggest that the market share for e-books could increase with reader acceptance. Books-on-tape or audio disk versions are also gaining market acceptance.

- Amazon Kindle $259 (and new "Kindle for PC").
- Barnes & Nobel Nook $259.
- Sony E-reader $200 to $400.

Apple has announced a new product that will have e-reader capability, for release in 2010.

Five national news and magazine publishers announced a joint venture in early December to develop an electronic format to rival Kindle's: Time Inc., News Corp., Conde Nast, Hearst Corp., and Meredith Corp. The publishers hope to "improve the experience" by emphasizing visuals and retaining the distinctive look of each publication, as compared to the text-oriented Kindle.

Catalogue sales and news are two other electronic venues where paper has ceded ground to electronic service. While not new, declines in paper use by both industries have accelerated in the current economic downturn and analysts suggest that when recovery comes for the general economy, demand for news papers, magazines, and catalogues may continue to be met online rather than by restored paper delivery.

Trucking Issues

The Forest Resources Association (FRA) continues to track several issues related to forest industry transport and logging equipment. One success occurred in December when the Internal Revenue Service (IRS) formally confirmed a finding announced this summer that log trucks would continue to have a 25 percent exemption from the Heavy Vehicle Use Tax. Congress initially granted the exemption in 1984, convinced by forestry and logging industry associations that log trucks travel unloaded about half the time. In 2008, the IRS began denying the reduction to firms in South Carolina and Virginia, and was set to expand to North Carolina. The FRA worked with the other industry associations in a joint effort, finally winning the case with the IRS. Those firms denied the exemption can file for refunds, including any penalties.

The FRA, the Agricultural Transportation Efficiency Coalition (AgTEC), and other allies are working to include the terms of US Representative Mike Michaud's (D-Maine) Safe and Efficient Transportation Act of 2009 (HR 1799) in the Highway Reauthorization Bill that is coming up for renewal. Provisions would give states the option of enabling six-axle trucks with gross vehicle weights (GVW) up to 97,000 pounds to use Interstate highways within their borders. Increases in GVW could improve industry competitiveness. HR 1799 also includes the assessment of a special bridge-maintenance fee on each qualifying vehicle registration.

http://www.ag-haul.org/

The FRA also reported that on December 8th a House-Senate conference committee approved the inclusion of US Senator Susan Collins's (R-Maine) amendment to the Senate version of the HUD/Transportation Appropriations Bill calling for a one-year pilot project to allow 100,000-pound, six-axle trucks full access to Interstate highways within Maine. The amendment also calls for the federal government to study the provision's impacts on various concerns such as public safety, road wear, and the environment. Preliminary reports are to be issued six months after implementation.

Legislation & Forestry

In November Congress passed and the President signed an appropriations bill that included provisions that alter funding of wildfire suppression. The Federal Land Assistance, Management and Enhancement ("FLAME") concept aims to meet the cost of fighting large or complex wildfires with funds from special reserve accounts for the Department of Interior (DOI) and the US Forest Service (USFS) when annual budgets for suppression have been exhausted. The

intent is to limit transfer of funds from other vital programs. Advocates pointed to forest management and planning funds transferred to fire suppression in past years, thus delaying activities and aggravating forest health problems. According to the National Association of State Foresters, the 2010 appropriations bill also increased budgets for DOI and USFS by $4.6 billion.

Wildfire suppression also emerged in discussion of arguments in support of a Healthy Forest Restoration Amendments Act of 2009 to expand jurisdiction of the US Forest Service beyond the limits that currently focus on the urban-wildland interface. The Society of American Foresters (SAF) expressed support of expanding project areas to better control wildfire and pests. The SAF also expressed support for the Incentives to Increase Use of Renewable Biomass Act of 2009 to improve utilization of woody biomass from forest health projects.

The federal estate tax drew legislative initiatives aimed at defeating or revising imminent changes. HR 3524, the Family Farm Preservation and Conservation Estate Tax Act, attempted to give family woodland owners more options in estate planning but made little progress. An effort to extend the 2009 federal estate tax provisions into 2010 was defeated, allowing the tax to fall to zero for the first time in nearly a century. The Forest Landowners Association expects the estate tax issue to rise again in 2010, with efforts to reinstate the tax retroactively opposed by efforts to reduce or ameliorate the tax when it revives on schedule in 2011.

Homebuyer tax credits included in the "Stimulus" legislation for 2009 have been praised for placing a limit to the collapsing housing market and perhaps beginning a recovery. Companies stated that federal and state level credits improved forest business real estate results during the year. In November, Congress extended the credit through April 30th 2010, with transactions to close by June 30th, and expanded eligible buyers to include some existing homeowners interested in moving to a new residence.

Climate change legislation, though much in the news, stalled in the US Senate. US envoys, including President Obama, attended the international climate change conference in Copenhagen in December. Before the meeting, on December 7th, the Environmental Protection Agency (EPA) by-passed the legislative process and ruled that emissions of CO^2 and five other greenhouse gasses (GHG) "endanger human health", making them subject to federal regulation. During the meeting, on December 16th, Department of Agriculture Secretary Vilsack announced that the US, along with Australia, France, Japan, Norway and the UK, would dedicate $3.5 billion, $1 billion from the US, towards reducing deforestation in developing countries as a means to reduce GHG emissions. However, when concluded, the UN-sponsored talks failed in their expressed goal: to propose a treaty to succeed the Kyoto Protocol of 1997.

Studies & Reports

The State of Canada's Forests, 2009 Canada has 402 million hectares (994 million acres) of forest and other wooded land. About 734,000 hectares (1.8 million acres) were harvested in 2007, the latest available.

Canadian harvest volumes in 2007 were 111 million cubic meters of softwood and 19 million cubic meters of hardwood on provincial Crown land with an additional 21 million cubic meters of softwood harvest on privately owned land and 7 million cubic meters of hardwood. These are well below the government's allowable annual cut (AAC) of 163 million cubic meters of softwood and 44 million cubic meters of hardwood for publicly-owned land. There is no AAC for Canada as a whole because private landowners are generally unregulated. Total harvest was down 11.5 percent from 2006 for softwood and 19.6 percent for hardwood.

The report provides a review of 2008, including effects of global economic downturn and widespread natural disturbance in the form of wildfire and pests.

Major themes included the potential of forest biomass and new technology applied to building construction and pulp and paper.

http://canadaforests.nrcan.gc.ca/rpt#stat

http://warehouse.pfc.forestry.ca/HQ/30071.pdf

Foreign Holdings of US Agricultural Land. 2009. USDA Farm Service Agency.

The report found that in early 2008, the latest available, foreign owners held an interest in 20.9 million acres of US agricultural land, including forest. This is a 1.4 million acre increase from 2007. Forestland comprises 12.6 million acres or 58 percent of these holdings. Maine has the largest foreign ownership of forestland at 3.30 million acres, followed by Alabama at 1.45 million acres and the State of Washington at 1.41 million acres. Foreign ownership interests in forestland in the South total 5.6 million acres or about 45 percent of the national total and 66 percent of total foreign-owned agricultural land in the South.

Canadians own more than one third of the foreign-owned forestland in the US. Foreign owners from the Netherlands are second in the US but first in the South, with about 3.9 million acres in the US, and over 2.7 million in the South.

www.fsa.usda.gov/FSA/webapp?area=home&subject=ecpa&topic=afa

Impacts of land use land cover on temperature trends over the continental United States. Fall, Souleymane et al. *International Journal of Climatology*. 2009.

A study by researchers from Purdue University and the universities of Colorado and Maryland concluded that greener land cover contributes to cooler temperatures, and almost any other change leads to warmer temperatures. Deforestation generally results in warming, with the exception of a shift from forest to agriculture. No clear picture emerged from the impact of planting or seeding new forests.

http://www3.interscience.wiley.com/journal/122572433/abstract

A Framework for Tracking the State of the Forest Industry: Case Study of Georgia. Sydor, Tim et al. 2009. *Southern Journal of Applied Forestry*.

Key insights highlight how localized forestry and forest industry profiles indicate where wood demand and supplies are in and out of balance on an annual basis. Alternately, localized profiles that emphasize physiographic regions may not correspond well with traditional wood procurement areas. More importantly, ongoing tracking of wood supply viability and competitive analysis must distinguish between timber markets (stumpage, forest inventories and removals, and growth) and end product commodity markets (lumber, pulp, oriented strand board, and plywood).

http://saf.publisher.ingentaconnect.com/content/saf/sjaf/2009/00000033/00000004/art00001

USDA Forest Service News:

FIA Mapmaker Decommissioned

The Forest Inventory and Analysis (FIA) switched its online reporting and data access to new services. There are newer web-based online data query applications available now to deliver most of the same functionality of Mapmaker – Forest Inventory Data Online (FIDO) and EVALIDator. Users of the RPA TPO Tablemaker are encouraged to use the TPO Reporting Tool. To access these tools go to the following links:

FIDO: http://fiatools.fs.fed.us/fi do/index.html

EVALIDator:
http://fiatools.fs.fed.us/Evalidator401/tmattribute.jsp

TPO Reporting Tool:
http://srsfia2.fs.fed.us/php/tpo_2009/tpo_rpa_int1.php

New USDA Forest Service Publications:

Profile 2009: Softwood Sawmills in the United States and Canada. Spelter, Henry et al. USDA Forest Service, Madison WI. Research Paper FPL-659. October 2009.

Between 2006 and the end of 2009, production capacity of softwood lumber mills in the US and Canada contracted from 190.8 million m3 (80.9 billion board feet) to 166.4 million m3 (70.6 bbf), a reduction of 12.7 percent. The number of saw mills declined from 1,025 to 875 over the same period, a reduction of 14.6 percent. Further attrition of capacity is likely, as profitability is unlikely to return until recovering demand and contracting supply reach a balance in the market. For capacity change in the South, see the article on page 27.

http://www.fpl.fs.fed.us/documnts/fplrp/fpl_rp659.pdf

Florida harvest and utilization study, 2008. Bentley, James et al. USDA Forest Service, Southern Research Station. Asheville NC. Resource Bulletin SRS–162. 2009.

This study estimated about 85 percent utilization, with 15 percent left as logging residue, for softwood volume in 82 operations. Hardwood volume had 74 percent utilization and 26 percent logging residue.

http://www.srs.fs.usda.gov/pubs/rb/rb_srs162.pdf

Virginia harvest and utilization study, 2007. Bentley, James et al. USDA Forest Service, Southern Research Station. Asheville NC. Resource Bulletin SRS–163. 2009.

This study estimated about 86 percent utilization, with 14 percent left as logging residue, for softwood volume in 81 operations. Hardwood volume had 79 percent utilization and 21 percent logging residue.

http://www.srs.fs.usda.gov/pubs/rb/rb_srs163.pdf

The South's timber industry—an assessment of timber product output and use, 2007. Johnson, Tony et al. Resource Bulletin SRS–164. 2009.

In 2007, industrial roundwood output from the South's forests totaled 8.22 billion cubic feet, 5 percent less than in 2005. Mill byproducts generated from primary manufacturers declined 8 percent to 2.95 billion cubic feet. Almost all plant residues produced were used for another product. Pulpwood was the leading roundwood product at 3.55 billion cubic feet; saw logs ranked second at 3.45 billion cubic feet; veneer logs were third at 721 million cubic feet. The number of primary processing plants declined from 2,028 in 2005 to 1,882 in 2007. Total receipts declined 5 percent to 8.26 billion cubic feet.

http://www.srs.fs.usda.gov/pubs/rb/rb_srs164.pdf

International Forest Products

The Russian government will continue to delay its proposed increase in timber export duties through the end of 2010. Reduced demand for timber in the global financial crisis has curtailed exports of Russian timber.

Södra, a major Swedish landowner cooperative, announced in October that it would increase the list price of timber by around SEK 50 (about US$7) per cubic meter, solid volume under bark (m3sub). The price of mixed coniferous pulpwood and spruce pulpwood will also rise by SEK 25 to SEK 285 per m3sub (about US$40). The company said that supply of wood materials had returned to more normal levels following salvage of the Gudrun and Per storms. Demand was also stabilizing after a period of uncertainty.

The Finnish Forest Industries Federation reported that, through October, forest industry wood purchases were about 7.4 million cubic meters, only about 29 percent of those in the same period in 2008. Pine and spruce log purchases were down less than birch logs. Pulpwood purchases were about 25 percent of year to date purchases last year. A temporary tax break designed to encourage timber sales appeared to have little

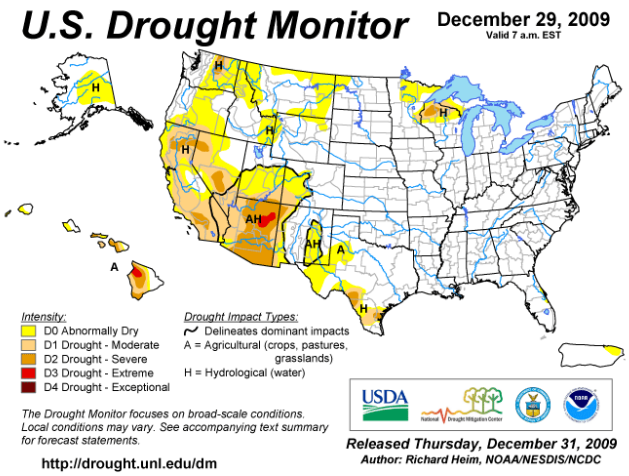
effect. Stumpage prices for saw logs increased, with spruce and pine logs averaging EU€46 per cubic meter (about US$66) and birch at EU€36 per cubic meter (about US$52). The average stumpage price for pulpwood declined: pine pulpwood averaged EU€14 (about US$20) per cubic meter, birch pulpwood EU€13, and spruce pulpwood EU€18 (US$26).

Weather, Etc.

General Weather: The US had the wettest October on record, and much of the South was drenched. Arkansas had its wettest year on record January through October. In November the wet weather moved eastward, with Virginia, North Carolina and South Carolina very wet. Across the South only Florida and parts of Tennessee had normal or below normal rainfall. Major winter storms in mid to late December shut down much of the US with Virginia and mountain areas receiving a blanket of snow.

http://www.hprcc.unl.edu/maps/current/

Drought: Rainfall this quarter eliminated residual drought conditions in the Southeast. Groundwater and streamflow were normal or above normal in many areas.



http://drought.unl.edu/dm/monitor.html

Fire: The number of fires in the 2009 fire season was about average but acres-burned was below average. A total of 5.7 million acres burned nationwide, of which about 975,000 were in the South. Fire potential is below normal for the first part of 2010 from Texas to the Atlantic coast. The Tennessee Valley, northern Mississippi and Alabama may have a higher risk of fire.

http://www.nifc.gov/nicc/predictive/outlooks/monthly_seasonal_outlook.pdf

Forecasts: Precipitation is expected to be above normal along the Gulf and South Atlantic coasts in January through March. Below normal rainfall could create drought conditions in the Appalachians.

http://www.cpc.ncep.noaa.gov/

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