Center Focus

A Publication from the
Center for Forest Products Marketing and Management
Department of Wood Science and Forest Products
Virginia Polytechnic Institute and State University
http://www.cfpmm.vt.edu

Special Double Issue

Fall & Winter 2008

IN THIS ISSUE:

Director's Message

Some of you may be familiar with "Click and Clack, the Tappet Brothers" on National Public Radio that airs on Saturday mornings. If not, you should listen sometime. They close their show with, "Well you wasted another good hour of your time." I imagine that is how many of us may feel of 2008. If we had only known! Yet from a business perspective we do know that business cycles do not only go up, there are dishonest folks in the food chain, too much government isn't good, and we always bounce back. The good news is that bouncing back should be closer now. The tough news is that we have to make it until then.

I have talked with many of you throughout the year and fully understand the challenges you face. We are facing them at the university also. However, this is why you hire good people and develop them. This is also what we do at the Center. We just get them, in most cases, before you do. Our goal is to provide individuals who can help you during the tough times, as well as the good. Our program continues to change to meet your needs. We are in the process of providing more flexibility for our students' learning experience and increasing their "hands-on" efforts. We hope that you will consider students for summer interns in 2009 and remember that interviews can start in February. Please contact Angie for any assistance you need for meeting with our students.

It is the holiday season and time to remember all of the many things to be thankful for:

- There will always be a need for our forest products;
- With every challenge exists an opportunity;
- We still have the right to succeed or fail with our efforts;
- Well managed companies are the backbone of the United States;
- Individuals within these companies make the difference;
- We live in the greatest country in the world, and
- Our friendships

In this expanded issue, Brian and Dr. Al Schuler from the USDA Forest Service, will share with you some thoughts on how we got into this financial and economic mess, how it has impacted the industry, and what you may be able to do to adjust your tactics to soften the recession's effects. The Forest Products Business News shows some of the changes occurring within the industry. From the Center, we would like to wish everyone a very happy holiday season and great new year. If I can be of any assistance, please contact me at 540-2312-7679 or rsmith4@vt.edu

Best wishes,
Bob Smith

Forest Products Business News

- *The Ottawa Citizen* reported that Quebec will invest $2 million to establish a hardwood lumber research center focused on new product development in the Outaouais.
- After starting in 2006, domestic furniture manufacturer, Linwood Furniture has grown to 135 employees and sales of $10-12 according to a report in *Wood & Wood Products.*
- According to a new RISI study, government mandates on renewable energy could lead to unsustainable forest harvesting. Source: *PR Newswire.*
- The report of the Maine Governor's Wood-to-Energy Task Force recommends tax incentives and a boiler replacement subsidy to businesses and homeowners who switch from fuel oil to wood-based heating. Source: *Portland Press Herald.*
- The *International Woodfiber Report* has estimated that the wood biomass industry will be a $1.5 billion fiber market by 2012. The report has identified 65 new, major wood energy project across North America with another 50 in the pipeline.
- According to *M2 Presswire*, British Columbian wood products will be used in a low-cost and safe housing demonstration project called Vancouver Village in the earthquake stricken province of Sichuan, China.
- The Conference Board of Canada reported that the forest products industry in Canada is expected to lose another $750 million dollars this year. Source: *The Canadian Press*.
- Walmart is reportedly phasing out wood from illegal sources in the furniture that is sold in its stores. Source: *Associated Press Newswires*.
- According to *Science Letter*, iGPS, a plastic pallet manufacturer, has funded an independent study whose results indicate that plastic pallets have a lower environmental impact than wood pallets.
- The *Business Wire* reported that Universal Forest Products has named Pat Webster to become president and chief operating officer.
- The Great Lakes Forest Alliance held a three-day conference in Madison, WI on sustaining the forest product industry. Source: *Wood Digest*.
- Merger and acquisition activity in the global forest, paper, and packaging industry was up $1.9 billion to $27.6 billion in 2007 according to the Pricewaterhouse Coopers Branching Out report. Source: *Canada Newswire.*
- KL Process Design Group, a cellulosic ethanol producer, went public in order to finance its second commercial scale production facility. The company also changed its name to KL Energy Corp. Source: *Market Wire.*

Forest Products Business News has been designed for educational and engagement purposes only. The intention is to report news that affects various business segments of the forest products industry. Any comments or questions should be referred to: cf.editor@vt.edu

Center Focus

Published Quarterly by
The
Center for Forest
Products Marketing and
Management

Department of Wood
Science and Forest Products
Virginia Tech
1650 Ramble Road
Mail Code 0503
Blacksburg, VA 24061

EDITOR
Brian Perkins

CONTRIBUTING EDITORS
Angie Riegel
Bob Smith
Arlice Banks

PHONE: (540) 231-4406
FAX: (540) 231-8868

VT/0023/0801/1.7M/220696

The Financial Crisis and the Wood Products Industry

By: Brian Perkins and Al Schuler

The financial crisis that started in August 2007 has been a long time coming and unfortunately the current recession won't be going away soon. This article will summarize the causes of this crisis, then discuss the impact it has had and could have on the forest products industry, and finally recommend actions that could help mitigate the crisis's effects and build for long-term performance. At the time of this writing, the full effect of the crisis's impact is largely unknown. The government response so far has yet to fix the 1¼ year old crisis. Currently, the banks are hoarding money in order to build their reserves against future losses, the Federal Reserve Bank has largely run out of fire power (near zero interest rate and a balance sheet full of questionable collateral), international trade is coming to a standstill as letters of credit dry up, and the deflationary pressures of falling real estate, energy, and equity prices are having an effect on consumers. If bank lending to qualified customers doesn't come back soon, there will be even more severe consequences to the real economy. First, let's review how we got here and then look at how it will impact the industry and what companies can do about it.

THE CAUSES

The financial crisis is global in scope due to the flow of international capital despite its acute causes that are mainly attributable to the U.S. financial system. There are a number of causes that led to the current financial crisis including the securitization of credit, negligence of credit rating agencies, deregulation, creation of the housing bubble, and excessive use of leverage. A review of each cause in more detail is presented below.

The credit crunch started with a loss of investor confidence in securities such as mortgage backed securities (MBS); assets backed securities (ABS), and collateralized debt obligations (CDO), etc. These securities bundled mortgages, commercial loans and other bank loans in order to spread the risk of losses. Many of these securities were given AAA ratings by credit rating agencies, who were paid by the securities issuer (a clear conflict of interest and a departure from historical norms of being paid by the securities purchaser), despite being made up of loans which had an elevated risk of defaulting (i.e.: subprime). Since these new securities were AAA rated, they could be purchased by pension funds, banks, and other investors seeking a "safe investment." These securities were sold by banks and mortgage originators to other banks and investors around the world. Many banks created off balance sheet entities that purchased these securities. In late 2006 and 2007, high interest rates caused adjustable rate mortgages to reset to higher payments which in turn caused the underlying loans to default and the securities themselves began to be devalued. Some securities lost over 75% of their initial value and this has lead to huge losses for purchasers of these securities. This securitization of credit effectively allowed banks to initiate more loans than their reserves should have enabled them to because they had sold the original loan. These securities failed to mitigate risk and the credit rating agencies that rated them failed to diligently assess risk.

This type of bank behavior was enabled by the repeal of parts of the Glass-Steagal Act which regulated commercial banks after the Great Depression. The barrier between commercial banks and investment banks was removed by the law's repeal and a new era of deregulation, speculation, and financial innovation was ushered in. Investment and commercial banks merged into behemoths and became too big to fail. The independence of these banks were called into question as the investment side tried to sell the securities produced on the commercial side. The regulation of banks became a lot more difficult as loans were chopped up and sold away. The true amount of risk a bank was exposed to was unknown. The use of derivatives grew exponentially and the Federal Reserve and the Securities and Exchange Commission neglected to adequately regulate these new financial products. At the same time, free market ideology intoxicated the regulators, policy makers, and politicians who were supposed to be protecting the financial system. Deregulation and inadequate enforcement of existing regulations helped create the equity and housing bubbles along with its exotic financial innovations.

The housing bubble, which has yet to deflate all the way, was characterized by the doubling of housing prices over the past decade. With everyone believing that house prices would always go up, people speculated and hurried to buy in order to get property "while it was still cheap." This was reinforced by official government policy to help subsidize home ownership through tax breaks on mortgage interests and the activities of government-sponsored enterprises – Fannie Mae and Freddie Mac. Many economists have pointed out that this is terribly wasteful since this subsidy doesn't increase our competitiveness or improve our productivity. There was simply too much investment in housing which is a non-productive asset. Growth in house prices during this bubble far outpaced growth in household income so financing had to get creative. Enter adjustable rate mortgages, no down payments, no document loans and securitization of credit. Nearly anyone with a heartbeat could get a mortgage evidenced by the so-called "ninja" loans: No-Income, No-Job or Assets. What happened to 20% down? As interest rates increased, these adjustable rate mortgage loans began to default and this lead to losses on the securitized debts (MBS's etc).

The housing bubble also became a way for homeowners to make up for the lack of real income growth. With house prices appreciating, homeowners extracted equity from their homes. Over half of all subprime loans were home equity loans. These new loans and exotic securities only provided the illusion of progress. People couldn't afford these homes, but they and the mortgages originators fooled themselves into believing that they could. Real progress would be an increase in income, job security, and savings that would really enable higher home ownership.

The subprime and even prime loans were made available and cheap to nearly everyone by an overabundance of credit supply in the U.S. which was created in part by foreign governments appetite for Treasury bonds (in order to maintain their currency pegs), a net savings rate in Asian countries, and a federal funds interest rate that was kept too low for too long by Alan Greenspan. This excess credit availability drove the housing and equity bubbles and it should have been stopped. Regulators, policy makers, and some economists were aware of it, but they did not do anything to slow it down.

During this time period (mid 90s to current), investors, banks, and hedge funds were looking to boost returns. They achieved this through the use of leverage. By borrowing money (debt) and investing it, they could achieve higher returns than just investing their own money (equity). This worked quite well for a while. Indeed, the financial industry was responsible for 46% of all earnings in the S&P 500 during the last bull run. The financial industry accounted for nearly 8% of GDP in this time period. Now, the financial industry is deleveraging and having to write down the losses on the loans that can't be paid back. Because of their extremely high leverage, there isn't much equity to absorb losses. This is why the government has to come in and bail them out. The bottom line is that the financial industry has gotten too big and must be scaled back to historic proportions. It must serve the needs of the economy and small businesses, not the other way around.

IMPACTS

The housing slowdown, which began in 2006 and declined rapidly since then, has been impacting the industry for a while. The current financial crisis is like the second punch in a powerful 1-2 combo that has knocked many companies out of business. Housing starts are down; home prices are down; unsold home inventories are up; non-residential construction and remolding activity have also declined; consumer confidence and builder confidence have decreased, and manufacturing activity has decreased despite dramatically decreased interest rates. These trends have and will continue to have drastic effects on the wood products industry since most of the industry's demand is driven by construction and consumer demand. The question is how long will this downturn last and how severe will it be.

The recession is already one year old and will not abate for at least another year. This downturn will be longer than normal also because there is a housing recession in conjunction with a financial crisis. The credit that drove the housing bubble will not be available to aid in the economic recovery. Also there are a large number of adjustable rate mortgages (ARM) that reset in 2010 and 2011. These could end up in foreclosure just like the subprime ARMs in 2008. There must be a large, effective program to stem the increase in foreclosures in order for the housing industry to stabilize. If banks were willing to give households the option to rent-to-own, this could be beneficial to both parties. Banks would get more than if the house was sold in a foreclosure and people would get to stay in their home. Even with good policies and economic stimulus, this could be the longest recession since the 43-month recession during the Great Depression. Given the policy response of the U.S. government so far, some observers think that the U.S. is headed the Japan route. Japan suffered a long (15 years) no growth period after its asset bubbles burst in 1990. If this is the case, the economy is unlikely to quickly and robustly recover in 2010.

The recession is also likely to be relentless for the forest products industry. Housing starts will fail to break 1 million units in 2008 and possibly only 800,000 units in 2009. This would be a 61% decline from the 2 million starts in 2005. This steep decline is comparable to the 51% decline over three years from 1972 to

1975. Then, housing restarts rebounded above their long term average (1.5 million units) the next year. We are unlikely to see housing starts rebound that quickly in the current scenario. House prices must fall further and household incomes must rise in order to revert to their long term trends (Figure 1). People must be able to afford houses to purchase them and until this happens there won't be a housing recovery. This recession looks to be a long and deep one.

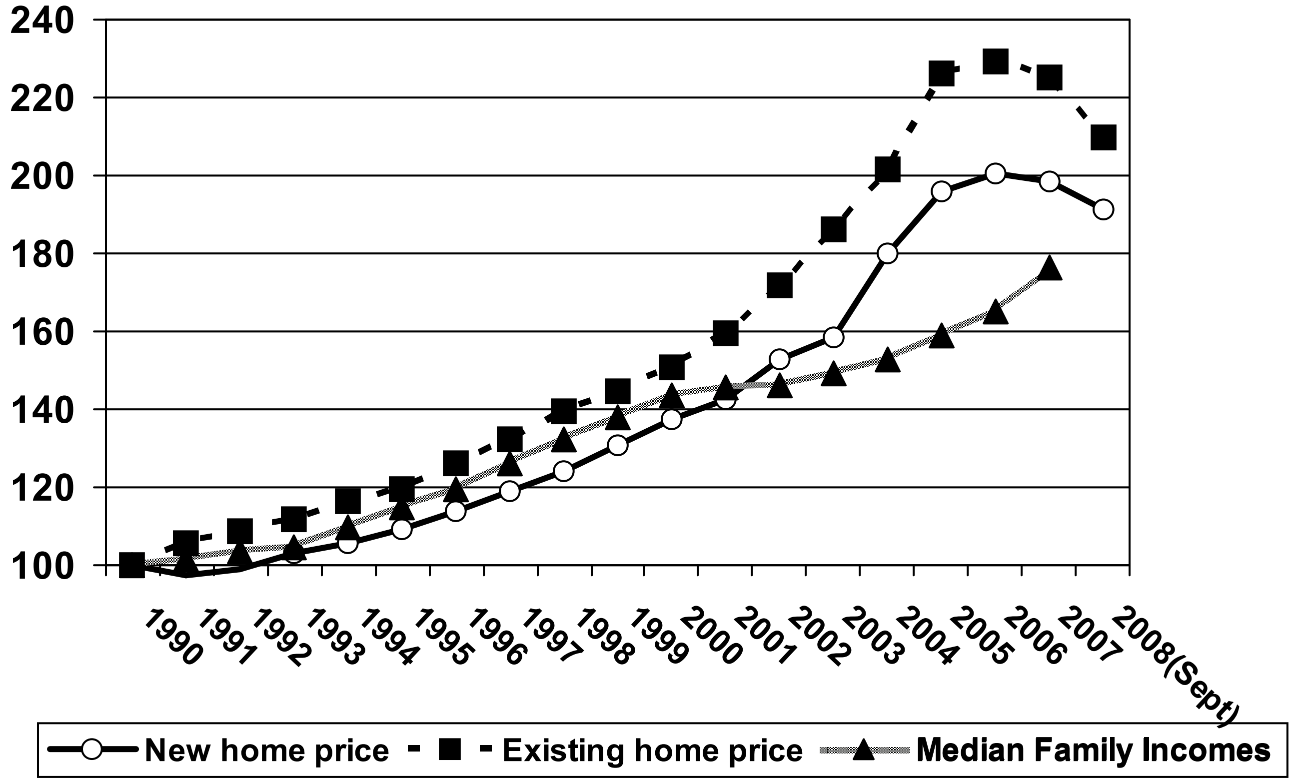

Figure 1. Home Price and Household Income Relationship Source: Al Schuler, USDA Forest Service

Companies across the forest products industry from logging to cabinetry have already closed operations, some temporarily and some permanently. Since January 2006 according to Bureau of Labor Statistics data, job losses in wood products manufacturing have totaled 126,000 (22% of the total industry employment). Production cut backs and consumption declines in nearly every segment of the industry have been significant: softwood lumber down 30%; hardwood lumber down 30%; structural panels down 26%; and engineered wood products (EWP) down 20-30%. We have seen a rebalancing of supply and demand in lumber, EWPs, and panels but this may have to occur again as housing-related demand continues to decrease in 2009 and deflationary pressures further erode prices. The historic low prices of lumber and panels in conjunction with high costs have caused many companies to become unprofitable. The S&P Global Timber & Forestry Index has fallen 55% from its apex in early 2007. In the short term, the job losses, plant closures, and financial losses in the industry will have to continue into 2009 so that supply is brought back in line with demand.

SHORT TERM RESPONSES

What can we do as an industry to cope with this deep, protracted recession? The necessary responses by the industry aren't actions that companies like to take but they must. The list includes cutting production, shutting down temporarily, dramatically cutting costs, conserving cash, finding new markets, diversifying into other markets, and going out of business. We'll review a number of these actions but a combination of all of the above is probably necessary.

First things first, the industry should position itself to take advantage of the coming economic stimulus. The stimulus is likely to be made up of infrastructure investment, state and local government spending, extension of unemployment benefits, and green energy investments. Can your manufacturing facility be retrofitted to produce renewable energy from wood residue? Despite low energy prices, now is a good time to layout a long-term strategy for diversifying into energy production. There has been much research on how to use wood for transportation infrastructure. Does this market fit with your existing capabilities? Finding new markets not tied to housing and diversifying your product portfolio are critical during these times but also make for a good long-term strategy.

Production decreases and temporary shut downs go hand-in-hand with cutting costs and conserving cash. Fortunately, there has been some relief in the form of decreased energy costs recently along with lower international shipping rates. In order to deal with declining sales revenue and profitability, firms have to cut costs in order to survive. Expenses that seem to be non-essential are the first to get cut such as the holiday bonus and party, along with postponement of computer and machinery upgrades. More important expenses such as advertising, research and development, dividend payments, and pay raises are next in line. The more difficult costs to cut are the large ones: raw materials, labor, energy, supplies, etc. The cutbacks in production help reduce these costs but they also reduce cash flow which is critical. Without adequate cash flow, companies go bankrupt. Proper management of cash flow is especially important during a downturn. Companies can demand payment up front, decrease their account receivables, and try to extend their account payables in order to stretch their cash flow. Decreasing costs and conserving cash during a downturn are just as important as trying to increase sales or capture market share.

There is a natural inclination to look for growing markets overseas for current production as domestic markets shrink. The past few years has seen an increase in exports as the dollar declined and developing countries grew rapidly. Unfortunately, in the current recession there isn't likely to be many opportunities. Are there small, niche markets that are growing for some products? Yes, of course, but foreign markets are generally not attractive right now. The European Union and developing countries of BRIC (Brazil, Russia, India and China) are in a downturn also. This downturn will be global. China is likely to be harshly affected due to its export and currency imbalances.

China is in a position similar to that of the U.S. prior to the Great Depression. At that time, the U.S. was a large net exporter and had amassed large gold reserves as a result. There wasn't much domestic demand in the U.S. We were a net saver effectively exporting our lack of demand. At that time, Europe was indebted to the U.S. and eventually they were forced to default on their debt. The U.S. went off the gold standard, the dollar dropped 40% and then the economy was able to recover. China is currently a large net exporter, has large foreign exchange reserves (the dollar has taken the place of gold), has comparatively weak domestic demand, and has financed much of the U.S.'s overconsumption. The current policy responses of China (export subsidies and currency support) are counterproductive. China must stimulate domestic demand in order to avoid the effects of the global recession. In summary, now isn't the time to enter foreign markets, especially China.

The capital improvements and cost reductions that the industry has invested in and the new products and markets they have developed and entered may pay off during the downturn. Companies that haven't changed any of their operations or marketing may suffer as competition intensifies just as it did with globalization. However, those companies with large debt payments will suffer from tighter cash flow than those with smaller debt payments. Good accounting and financial analysis is especially important when company finances become tight. A close eye must be kept on competitors especially those that may go under. Will you be able to service their customers or does it make since to acquire their operations? These are some of the short term responses that management must consider during these difficult times.

LONG TERM RESPONSES

What we must do as a country is to invest in our forest products industry and the larger manufacturing industry for the long term. Given the global imbalances in trade, specifically forest products, we as a country must produce more with our given resources. We are going to have to invest in the long-term productivity and sustainability of our forestlands. This forestland in turn must be available to supply us the fiber, fuel, food, fresh air, sequestered carbon, wildlife, clean water, etc. that we need to improve our economic well being. In a couple years, as asset prices reach bottom, those companies looking to acquire forestland may find some good values.

Wood product manufacturers must figure out a way to reduce lead times, reduce inventory, and shorten the supply chain. We just can't produce products that people don't want to buy. Are there new products/ services that are needed in the market? Good market research will help answer that question. Companies need to become more responsive to the consumer and understand their behavior. Now is the time to get closer to your customers and understand them better. Firms must find out what markets they are competitive and profitable in and produce only the value-added features that customers are willing to pay for. Companies must correctly position themselves to take advantage of the green building, and climate change mitigation trends. If your company owns forestland, are you prepared to benefit from carbon trading? Have you performed a cost benefit analysis on forest certification? This economic downturn will be notable but with good management and good marketing, the wood products industry can emerge stronger, more competitive and more sustainable.

Calendar of Events & Announcements

April 20 - 21, 2009	*Workshop for Remaining Competitive in Hardwood Components Production*	

Wood Education and Resource Center (WERC), Princeton, WV. The workshop will focus on the current macro and micro economic situation and will include input from industry experts on the state of the industry and an outlook. A second topic covered will be the situation of certified wood components, sourcing strategies, consumer expectations and an outlook as to what's next in certified, green, hardwood components. A visit to a lean hardwood components manufacturing site is also scheduled. Experts will talk about lean manufacturing systems and be available for discussions. A dinner at the Pipestem Resort will allow for more discussions and networking to take place. For more information please contact Urs Buehlmann at 540.231.9759 or buehlmann@gmail.com.

March 17 - 19, 2009	*2009 HMA National Conference & Expo*	Charlotte, North Carolina
March 20-22, 2009	*VFPA Annual Convention*	Williamsburg, Virginia