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U.S. Forest Products Annual Market Review and Prospects, 2005–2009

James L. Howard
Rebecca Westby



Abstract

This paper describes the current state of the U.S. economy and provides general and statistical information on forest products markets in terms of production, trade, consumption, and prices. Market developments are described for sawn softwood, sawn hardwood, softwood log trade, wood-based panels, paper and paperboard, fuelwood, forest product prices, and housing starts. Policy initiatives that can affect domestic markets and international trade in wood products are also discussed in some detail. Data are provided through the end of the year 2008 with forecasts through 2009.

Keywords: production, trade, prices, forest products

Executive Summary

As expected, economic activity in the United States weakened during the first quarter of 2009, confirmed by the decline in the annual rate of real gross domestic product (GDP) of 5.2%. Economic activity during the second quarter of 2009 is projected to decline 1.8%. The U.S. economy will likely contract at a higher rate in the first half of 2009 than predicted earlier in the year, according to 43 forecasters surveyed by the Federal Reserve Bank of Philadelphia, who also expect economic recovery to begin in the third quarter of 2009 (Federal Reserve Bank, February 13, 2009). Growth in U.S. real output and inflation over the near term looks a bit slower than it did during the fourth quarter of 2008. Forecasters also expect a slight rise in 2009 unemployment rate, measured on an annual-average basis. Unemployment is expected to rise from 7.8% in the first quarter of 2009 to 8.9% in the fourth quarter of 2009, for an annual average

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unemployment rate of 8.4% for 2009. The forecasters see prices rising in the second quarter of 2009 at a slightly lower rate than previously expected, then increasing in the third quarter of 2009. With increased stability returning to the U.S. credit markets because of the Federal Government economic rescue plan passed in early October and the American Recovery and Reinvestment Act of 2009 passed in February 2009, the expectation for returning strength in the housing sector has increased. This expectation may not be realized in 2009 because more mortgage rates will reset on subprime loans, and increased foreclosures are expected. In the near term, the turmoil in the global financial markets are easing but remains volatile and will continue to dominate the economic climate.

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James L. Howard, Economist

Rebecca Westby, Economic Assistant

Forest Products Laboratory, Madison, Wisconsin

General Economic and Major Market Trends

The U.S. economy will contract at a slower rate during the second quarter of 2009, compared with the first quarter, before rebounding slightly starting in the third quarter of 2009, according to 43 forecasters surveyed by the Federal Reserve Bank of Philadelphia (February 13, 2009). The forecasters expect real gross domestic product (GDP) to decline at an annual rate of 5.2% in the first quarter of 2009, and 1.8% in the second quarter of 2009, for an annual average of 2.0%. The increased pessimism about the labor market accompanies the outlook for weaker output growth. Measured on an annual-average basis, unemployment is expected to rise from 7.8% this quarter to 8.9% in the fourth quarter, for an average of 8.4% this year. Forecasters expect unemployment to increase to 8.8% in 2010. This increase in unemployment equates to job losses in the first quarter 2009 of 548,400 per month—311,200 per month in the second quarter of 2009 and 202,100 per month in the third quarter of 2009. On an annual-average basis, the forecasters expect jobs to decline 328,400 per month in 2009. However, forecasters also expect a recovery in the labor market to begin in the first quarter of 2010 with job gains of 38,700 per month.

Core inflation as measured by the Consumer Price Index is expected to average 1.2% in 2009 before rising to 1.6% in 2010. On an annual-average over annual-average basis, inflation in the GDP price index is projected to remain around 2.2% over the next 5 years (Federal Reserve Bank of Philadelphia 2009).

With a large forest resource and high production and consumption of wood products, the United States continues to play an important role in world forest product markets. The United States has the world's highest consumption of paper and paperboard (about 89 million metric tons in 2008), which is mostly supplied by domestic production and imports from Canada (AF&PA 2009). The U.S. solid wood industry manufactured about 84 million cubic meters of lumber and 21 million cubic meters of structural panel products in 2008. The U.S. forest products industry annually harvests more than 451 million cubic meters of softwood and hardwood timber. However, domestic roundwood timber harvest in 2008 that supports domestic consumption is expected to be below the 2007 harvest level before declining further in 2009.

New housing construction showed continued weakness during the fourth quarter of 2008 and into the first quarter of 2009. With unsold houses, a weak economy, and no end in sight for the subprime-induced financial crisis, the housing market will probably remain weak throughout 2009. This is problematic for the wood sector because new housing construction accounts for more than a third of U.S. annual consumption of softwood sawn wood and structural panels and for substantial volumes of other softwood and hardwood products. Total housing starts decreased 33% from 2007 to 2008 to a seasonally adjusted annual rate of 906,000 units, continuing the overall decline since 2005, when housing starts peaked at 2,068,000 units. All four regions in the United States contributed to the 2008 decrease in housing starts. The largest decrease of 39% was recorded in the West (196,000 annual rate for 2008), followed by a loss of 36% in the Midwest (135,000 annual rate for 2008), a loss of 34% in the South (453,000 annual rate for 2008), and a decrease of 15% in the Northeast (121,000 annual rate for 2008). A continued decline is also seen in the first quarter of 2009. In March 2009, seasonally adjusted annual rates for housing starts were at 47,000, 102,000, 268,000, and 73,000 for the Northeast, Midwest, South, and West regions, respectively. Additionally, seasonally adjusted annual single-family starts totaled 622,000 in 2008, a 41% decrease from one year earlier. A continued decline was seen in the first quarter of this year, totaling 78,000, a 52% decrease from the same period one year earlier. Construction on approximately 152,000 multifamily units at a seasonally adjusted annual rate began in March 2009, 125,000% less units than one year earlier. Both sectors are on course to fall below their 2008 production levels.

The housing market began to contract in May 2006, and with the exception of the Northeast multi-family starts, total starts for 2009 will have a difficult time improving on the 2008 low performance level. The outlook for 2009 shows a continued decline in housing starts.

In 2008, the value of new construction was at a seasonally adjusted \$1,074 billion, 4.8% below the July estimate of \$1,139 billion. Residential construction was \$358 billion in 2008, 28% below \$494 billion of residential construction in 2007. Nonresidential construction was \$314 billion in 2008, 13% above the \$277 billion in 2007. The value of public construction in 2008 accounted for \$296 billion. In 2009,

Table 1. Selected U.S. economic indicators, 2005–2009

Indicator	Actual				Forecast
	2005	2006	2007	2008	2009
^a Gross domestic product (billion 2,000 dollars)	11,049	11,415	11,524	11,652	11,547
^b New housing starts (thousand units)	2.068	1.801	1.046	0.622	0.718
^b Mobile home shipments (thousand units)	147	117	96	82	85
^a Nonresidential investment in structures (billion 2,000 dollars)	251.5	298.1	304.6	338.8	325.7
^c Total industrial production (Index: 2002 = 100)	108.2	107.5	111.4	109.6	107.4
^c Furniture and related products (Index: 2002 = 100)	100.7	104.7	101.0	90.4	88.4
^c Paper products (Index: 2002 = 100)	105.4	101.6	95.9	92.1	90.2

^a*Economic Indicators*, March 2009.

^bNational Association of Home Builders, *Housing Economics*, April 2009.

^c*Federal Reserve Bulletin*, August 2005 through December 2008.

the National Association of Home Builders forecast calls for the housing sector continued decline, with starts and sales for 2009 ending slightly below 2008 levels (NABH 2009).

Investment in residential repair and remodeling remained strong, along with a slight increase, whereas new residential construction weakened during 2008. Expenditures for improvements and repairs of residential properties were at a seasonally adjusted annual rate of \$226.4 billion in 2007. This estimate is just 1% below the 2006 estimate of \$228.2 billion. Expenditures for maintenance and repairs to all properties amounted to a seasonally adjusted annual rate of \$54.7 billion during 2007, increasing slightly over the \$53.4 billion during 2006. Improvements amounted to \$171.6 billion in 2007, below the \$174.8 billion in improvements during 2006. Anecdotal information suggests that expenditures for improvements and repairs of residential properties will remain strong in 2009.

Two of the major indicators of demand for wood products—furniture and related products and paper products output—were lower during the first 7 months of 2008 relative to 2007, whereas total industrial output exceeded year-ago levels:

- **Industrial production**, an important demand determinant for pallet lumber, containerboard, and some grades of paper, decreased 2% over the first 4 months of 2009.
- **Furniture and related products**, a determinant of high-grade lumber production, decreased by 2% in the first 4 months of 2009 improving on the decline of 2008.
- **Paper products output**, a determinant of pulpwood and wood residue use, as well as recycled fiber availability and use, decreased during the first 4 months of 2009 compared with the 2008 average. The index (2002 = 100) of paper products output for the first 4 months of 2008 was at 87.0, almost 2% behind the 2008 average.

In summary, the housing sector weakened during 2008, and this weakness has continued into 2009. Starts in 2009 will probably fall below year-ago levels as a result of the

expected continuation of the housing sector melt-down that is forecast to continue throughout 2009. With the negative rate of growth in GDP, most analysts predict that conditions favorable to the growth of timber markets won't occur until the second half of 2009. Selected U.S. economic indicators are shown in Table 1.

Timber Products Production, Trade, and Consumption

Statistics and Prospects

Prospects for wood and wood products are shown in Table 2. All volumes are reported in 1,000 cubic meters. Data for 2009 are forecasts.

Sawn Softwood

Housing and other construction markets started off weaker in 2008 and that weakness has continued into the second quarter 2009. The housing market is likely to finish the year at a much lower level than that recorded a year ago. The decline in the housing sector continues to have a negative effect on softwood lumber consumption. According to the Western Wood Products Association (WWPA), during the first month of 2009, softwood lumber consumption decreased 34.3% from the same period last year, and shipments of softwood lumber from western mills decreased 32.2% during the first month of 2009 compared with the same period in 2008 (WWPA 2009). Production decreased during this period in the West as well as in the South, 35.1% and 33.7%, respectively. Apparent consumption for the first month of 2009 was 3.85 million cubic meters, 34.3% below the 5.90 million cubic meters for the first month of 2007. As predicted, the U.S. housing construction industry declined over the second half of 2008 and into 2009. Timber production, therefore, could also continue to fall in 2009 after declining in 2008.

Production of sawn softwood decreased 34.3% in the first month of 2009 compared with the same period in 2008. In 2008, 49.4 million cubic meters of sawn softwood were

Table 2. Statistics and prospects for wood and wood products^a

Sawn softwood				Oriented strandboard (OSB)			
	2007	2008	2009		2007	2008	2009
Production	59,511	49,438	42,319	Production	13,065	11,508	10,907
Imports	30,993	21,558	21,613	Imports	6,114	3,327	3,112
Exports	1,575	1,741	1,785	Exports	222	440	456
Consumption	88,929	69,255	62,147	Consumption	18,957	14,395	13,563
Coniferous logs				Particleboard			
	2007	2008	2009		2007	2008	2009
Production	163,748	137,062	135,716	Production	6,271	5,161	4,865
Imports	1,756	847	640	Imports	900	708	698
Exports	7,589	6,901	6,970	Exports	228	251	242
Consumption	157,915	131,008	129,386	Consumption	6,943	5,618	5,321
Sawn hardwood				Medium density fiberboard (MDF)			
	2007	2008	2009		2007	2008	2009
Production	24,811	23,454	15,062	Production	3,343	3,021	3,110
Imports	1,036	852	719	Imports	1,140	821	860
Exports	2,167	2,229	1,998	Exports	353	452	398
Consumption	23,680	22,077	13,783	Consumption	4,130	3,390	3,572
Hardwood logs				Insulation board			
	2007	2008	2009		2007	2008	2009
Production	56,883	51,730	50,002	Production	2,755	2,755	2,600
Imports	73	149	137	Imports	360	360	305
Exports	2,016	1,972	1,899	Exports	201	201	201
Consumption	54,940	49,907	48,240	Consumption	2,914	2,914	2,704
Coniferous plywood				Roundwood pulpwood			
	2007	2008	2009		2007	2008	2009
Production	10,835	9,060	8,608	Production	142,230	135,062	133,077
Imports	974	672	590	Imports	899	701	705
Exports	489	550	537	Exports	2,780	2,680	2,697
Consumption	11,320	9,182	8,661	Consumption	140,349	133,083	131,085
Non-coniferous plywood				Hardboard			
	2007	2008	2009		2007	2008	2009
Production	1,566	1,218	1,198	Production	977	860	849
Imports	3,439	2,389	2,210	Imports	1,183	709	776
Exports	159	180	179	Exports	358	332	360
Consumption	4,846	3,427	3,229	Consumption	1,802	1,237	1,265

^aAll volumes are reported in 1,000 cubic meters. Figures for 2009 are estimates.

produced. Production of sawn softwood for 2009 is forecast to fall below 2009 levels.

Sawn softwood imports decreased 35.5% during the first month of 2009 relative to the same time period a year ago. The volume of Canadian imports, which constituted 90% of all sawn softwood imports, decreased by 30.5% over this period. Total sawn softwood imports were 21.6 million cubic meters in 2008, a decrease of 31.1% from 2007.

During the first month of 2009, U.S. sawn softwood exports decreased 11.0% compared with exports for the same period in 2008. Exports to Canada decreased by 51.4%, while exports to Japan and Mexico increased 106.8% and 9.8%, respectively.

Sawn Hardwood

Sawn hardwood production decreased by 18.2% to 19.1 million cubic meters in 2008. Imports in 2008 decreased by 30.5% compared with 2007. Given the decrease in U.S. production, volatile trade figures, and a declining housing market, apparent consumption for 2009 is forecast to fall below the 2008 volume.

Softwood Log Trade

Softwood log exports to Japan decreased 44.2% in the first month of 2009 when compared with exports in the same period of 2008, while softwood log exports to Canada increased by 47.5% in the same period. Softwood log exports to all other countries decreased by 42.5% during the first month of 2009 when compared with the same time period of one year ago. This level remains well below export levels throughout the 1990s. Softwood log imports increased by 1.5% in the first month of 2009 compared with a year earlier. During 2008, the decline in timber harvest slowed to a lower rate than that in previous years and the forecast calls for continued decline in harvest in 2009.

Hardwood Log Trade

Hardwood log exports decreased slightly and imports doubled during 2008 compared with 2007. Exports decreased 21.7% and imports increased 104.1% compared with this period in 2007. Canada traditionally provides about 95% of U.S. imports.

Pulpwood

Roundwood production for pulp and wood-based panel mills was 160 million cubic meters in 2007, down slightly from 2006. Roundwood pulpwood consumption is expected to continue to decrease slightly during 2008. Pulpwood supplied from residues is decreasing relative to roundwood. The roundwood portion of pulpwood was 140 million cubic meters in 2007, a 1.4% increase from 2006 (estimate based on pulpwood receipts data from the Forest Resources Association prior to 2008). Trade patterns have continued to have a significant impact on paper and paperboard production and have affected pulpwood use. Exports of paper, paperboard,

and converted products increased by 6.1% to 15.5 million tons, while imports of paper and paperboard decreased by 10.4% to 14.8 million tons in 2008. Paper and paperboard production decreased by 4.6% to 87.5 thousand tons in 2008. The production of paper and paperboard in 2009 is forecast to be 2% below 2008 production.

Structural Panels

In 2008, structural panel consumption decreased 20.8% to 26.8 million cubic meters. Oriented strandboard (OSB) consumption totaled 15.8 million cubic meters and constituted 59% of the structural panel total, a 4% share decrease from 2007. Because OSB now accounts for 62% of structural panel consumption (1% decline from 2006), OSB consumption is expected to continue to decline as well as plywood consumption. Structural panel production in 2008 was 13.9% below the previous year's level. Apparent consumption of OSB is expected to decline in 2009.

Softwood plywood production was 9.1 million cubic meters in 2008, according to APA – The Engineered Wood Association (2009). This level of production was 16.4% below 2007. The volume of softwood plywood production fell throughout the 1990s, and the decline continued through 2008. Softwood plywood imports decreased in 2008 by 30.2% compared with 2007 data, while softwood plywood exports increased in 2008 by 12.3%. Plywood exports to Canada increased by 22.1% during 2008 compared with a year earlier, and plywood imports from Canada decreased 43.3%. Apparent consumption of softwood plywood is expected to decrease in 2009.

In 2008, 11.5 million cubic meters of OSB were produced, compared with 13.1 million cubic meters in 2007.

Hardwood Plywood

Hardwood plywood production, including core material such as softwood plywood and OSB, was estimated at 1.6 million cubic meters in 2007, down from 2006 production. Hardwood plywood imports decreased 30.5% in 2008 falling to 2.4 million cubic meters when compared with 2007. Hardwood plywood exports rose in 2008, increasing 13.5% to 180 thousand cubic meters. Because of the U.S. housing collapse, production of hardwood plywood for 2008 is forecast to be below the 2007 production level then will fall further in 2009.

Particleboard and Medium Density Fiberboard

Information from the Composite Panel Association (CPA 2008) indicates that particleboard and medium density fiberboard (MDF) production decreased during 2008. Particleboard production was 5.2 million cubic meters, a decrease of 18%, and MDF production was 3.0 million cubic meters, a decrease of 9.6%. During 2008, particleboard imports decreased by 21.3% while MDF imports decreased by 28.0%

on a volume basis, compared with 2007. Particleboard and MDF exports increased, by 10.5% and 28.1%, respectively.

Hardboard

Based on data from the Composite Panel Association (CPA 2008), 860 thousand cubic meters of hardboard were produced in 2008; this level of production is expected to decline slightly in 2009. Hardboard imports and exports are expected to remain flat over the next two years.

Insulation Board

Information from the AF&PA showed that 2.7 million cubic meters of insulation board was produced in 2008, unchanged from 2007. Production of insulation board has been flat for several years, resulting in a stable level of apparent annual consumption of about 3.0 million cubic meters.

Fuelwood

Using data from a 2008 Department of Energy survey (DOE 2008c) and adjusting for the 2008 winter weather and an increasing trend in fuelwood use per household, fuelwood consumption was estimated to be 42.8 million cubic meters in 2008—a decrease of 6.7% from 2007. Households use most fuelwood for heating and aesthetic enjoyment. Industry uses mill residues rather than roundwood for fuel. A small portion of roundwood fuelwood is used for electric power production. Use for electric power is limited by the low cost of coal and natural gas alternatives. Fuelwood consumption for 2007 was above the level for 2006 and the forecast still calls for increased fuelwood consumption through 2009. Renewable Fuel Standards and other biomass-related energy policies are likely to increase the growth rate for fuelwood and other forms of wood energy (DOE 2008d).

Forest Products Prices

Recent trends in the wholesale price of forest products are different across two broad categories: lumber and wood products (such as lumber and wood-based panels) and pulp and paper products (Fig. 1). Throughout the late 1990s, the producer price of lumber and wood products as reflected by the producer price index (PPI) continued to fluctuate around a level reached by the mid-1990s before peaking during the second half of 1999. The PPI for lumber and wood products continued to decrease during the first quarter of 2008, but rose and peaked in the third quarter, and then declined again in the fourth quarter and into the first quarter of 2009. Changes in the price of softwood lumber and a soft lumber market accounted for much of this change and most of the volatility in the index. In 1999, the deflated composite price index reached an all-time high (at a level more than 50% higher than that of the base year, 1982), followed immediately by a sustained decline that continued throughout 2000 and into 2009. The PPI reached its lowest level in 5 years during this period. In spite of these sustained low prices, U.S. demand for lumber and wood products during 2000 and into 2005 remained near record levels. But the current

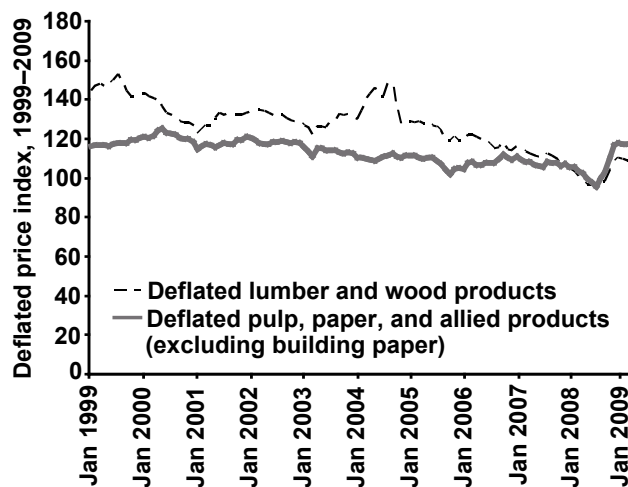


Figure 1—Wholesale prices of forest products, 1999 to 2009 (BEA 2008).

situation in the housing market could cause record low price levels if the downturn persists. In contrast, the PPI of prices in the pulp and paper sector has exhibited considerably less short-term volatility. In deflated terms, the composite index began 2008 with a flat to declining trend, before undergoing an upturn in the third quarter of 2008 that became flat in the first quarter of 2009.

Policy Initiatives

Climate Change

The United States has taken a leading role in addressing the issue of climate change. The United States is on track to cut greenhouse gas intensity by 18% by 2012. Greenhouse gas intensity—the amount emitted per unit of economic activity—declined by 2.5% in 2005 and by 3.7% in 2006 (DOE 2008a). During 2001 through 2006, the U.S. Government will have devoted more than \$29 billion to climate programs, more than any other nation. During his inaugural address in January 2009, President Obama announced the continuation of the Advanced Energy Initiative, which proposes a 22% increase in funding for clean energy technology research, supporting new biofuels such as cellulosic ethanol and biodiesel. The United States is also leading the global effort to promote clean development, enhance energy security, and reduce harmful air pollution worldwide. Multilaterally, the United States provides the most funding of any country for activities under the United Nations Framework Convention on Climate Change (UNFCCC) and the Intergovernmental Panel on Climate Change (IPCC 2008).

The 2002 Farm Bill provided nearly \$40 billion in funding over 10 years for conservation on working lands, enabling the Federal Government (largely through the U.S. Department of Agriculture) to provide targeted incentives to encourage wider use of land management practices that remove carbon from the atmosphere or reduce emissions

of greenhouse gases. The 2007 Farm Bill added additional funding, \$7.8 billion over 10 years above the current conservation baseline.

The U.S. Federal Government supports an extensive array of scientific and technological research on climate change in addition to domestic and international actions to address greenhouse gas emissions and carbon sequestration. The 2003 Strategic Plan for the United States Climate Change Science Program identified 21 synthesis and assessment products that represent principal responses to the top-priority research, observation, and decision support needs of society. The Climate Change Science Program (CCSP) Synthesis and Assessment Product 4.3 (SAP 4.3) will address the effects of climate change on agriculture, land resources, water resources, and biodiversity (CCSP 2008). These areas are addressed under the ecosystems, land use, and water research elements of the CCSP. One of the primary goals of these research elements is to enhance understanding and ability to estimate impacts of future climate change on these systems.

Greenhouse Gases

Forest ecosystems and forest products represent a significant carbon dioxide sink in the United States. Over 90% of the sequestration in agriculture and forests occurs in the forest sector, with an additional 7% sequestered in urban trees. Total carbon stocks in forest ecosystems of the conterminous United States are estimated at 184,800 TgCO₂ eq. The net amount of carbon stored in forest ecosystems in the conterminous U.S. increased by an estimated 547 TgCO₂ eq. This estimate does not include increases in biomass harvested from a portion of U.S. forests, used largely as lumber, panels, paper and fuelwood. On April 17, 2006, the U.S. Department of Energy (DOE) issued revised guidelines for the voluntary reporting of greenhouse gas emissions, sequestration and reductions, known as the 1605(b) program. The program was implemented by DOE during 2007. The initial program guidelines were issued in 1994, and over 200 utilities, industries, institutions, and other entities now report annually. The U.S. Department of Agriculture provided the technical methods for estimating greenhouse gas emissions, carbon sequestration, and emission reductions on farm, forest, and grazing lands. The revised guidelines include “state-of-the-science” guidance and tools for estimating emissions from agricultural, forestry, and conservation activities important for carbon sequestration efforts, as well as from other sources of greenhouse gases. As noted in the Forest Appendix of the revised guidelines, international agreements recognize forestry activities as one way to sequester carbon, and thus mitigate the increase of carbon dioxide in the atmosphere; this may slow possible climate-change effects. The Forest Appendix can be found at http://www.usda.gov/oce/global_change/Forestryappendix.pdf.

Carbon is sequestered in growing trees, principally as wood in the tree bole. However, accrual in forest ecosystems also

depends on the accumulation of carbon in dead wood, litter, and soil organic matter. When wood is harvested and removed from the forest, not all of the carbon flows immediately to the atmosphere. In fact, the portion of harvested carbon sequestered in long-lasting wood products may not be released to the atmosphere for years or even decades. If carbon remaining in harvested wood products is not part of the accounting system, calculation of the change in carbon stock for the forest area that is harvested will incorrectly indicate that all the harvested carbon is released to the atmosphere immediately. Failing to account for carbon in wood products significantly overestimates emissions to the atmosphere in the year in which the harvest occurs. Tables of estimates of forest carbon stock are provided for common forest types within each of 10 U.S. regions. Six distinct forest ecosystem carbon pools are listed: live trees, standing dead trees, understory vegetation, down dead wood, forest floor, and soil organic carbon.

Bioenergy

Several recent key laws, Executive Orders, and regulations are helping to drive bioenergy production and use in the United States: Presidential Executive Order 13101, Greening the Government Through Recycling and Waste Prevention (which requires Federal agencies to give preference in their procurement and grant programs to the purchase of specific recycled content products); Presidential Executive Order 13134, Developing and Promoting Biobased Products and Bioenergy (which set a goal of tripling the U.S. use of bioenergy and bioproducts by 2010.); the Biomass Research and Development Act of 2000, (Title III of the Agricultural Risk Protection Act of 2000, P.L.106-224); and Section 9002 of the Farm Security and Rural Investment Act of 2002 (FSRIA) the first farm legislation containing a separate title (Title IX) devoted to energy and creates a Federal Government preferential purchasing program for biobased products to help promote emerging markets for these products (EIA 2009).

On August 8, 2005, the Energy Policy Act of 2005 (Public Law 109-58) was signed into law. The act promotes investments in energy conservation and efficiency, including provisions for promoting residential efficiency, reducing Federal Government energy usage, modernizing domestic energy infrastructure, diversifying the nation’s energy supply with renewable sources (wind, solar, and biomass energy), and supporting energy-efficient vehicles.

The FSRIA of 2002 created the U.S. Federal Biobased Products Preferred Procurement Program (FB4P). The FSRIA provides for development of a preferred procurement program for biobased products under which Federal agencies are required to purchase biobased products. Research is currently under way on biodiesel fuels, ethanol fuels, and other sources of biomass energy and associated research is under way on the measurement of atmospheric emissions associated with renewable energy and the potential effects

of deregulation of electric utilities on rural communities. On August 17, 2006, the USDA announced two proposed rules under the FB4P that designate 20 items that must receive special consideration by all Federal agencies when making purchases. The designation of these 20 biobased items is a major step in advancing the Federal preferred procurement program for biobased products. The 20 biobased items include adhesive and mastic removers, insulating foam for wall construction, hand cleaners and sanitizers, composite panels, fluid-filled transformers, biodegradable containers, fertilizers, metalworking fluids, sorbents, graffiti and grease removers, two-cycle engine oils, lipcare products, biodegradable films, stationary equipment, hydraulic fluids, biodegradable cutlery, glass cleaners, greases, dust suppressants, carpets, and carpet and upholstery cleaners. When finalized, 1,500 biobased products will be given procurement preference by Federal agencies, generating new economic opportunities for biobased product producers while providing new choices for U.S. consumers. Federal agencies must give preference to designated biobased products in Government purchases within one year of publication of the final designation rule. The USDA has assembled a list of biobased items that will be used for designation under the FB4P. The USDA has previously issued final guidelines for the biobased procurement program and developed a model procurement program of training and education to help Federal procurement officials and users of biobased products identify and purchase qualifying biobased products (USDA 2002).

The Energy Independence and Security Act (EISA) of 2007 will improve vehicle fuel economy and help reduce U.S. dependence on oil. The bill the President signed responds to the challenge of his bold “Twenty in Ten” initiative, which President Bush announced in January 2006 (The White House 2008b). It represents a major step forward in expanding the production of renewable fuels, reducing our dependence on oil, and confronting global climate change. The goal is to increase energy security, expand the production of renewable fuels, and make America cleaner for future generations. The EISA has set a target of 16 billion gallons of cellulosic biofuels production by 2022. It would provide one quarter of this production with an efficiency of 100 gallons of biofuels per dry ton of wood, which would mean an increase in wood use of 40 million oven-dry tons per year or an 18% increase over current wood harvest of 224 million oven-dry tons per year (DOE 2008c).

U.S.–Canada Softwood Lumber Dispute

On July 1, 2006, United States Trade Representative Susan Schwab and Canadian Trade Minister David Emerson initialed the text of a softwood lumber accord. Under the terms of the agreement, the United States and Canada were supposed to end all litigation over trade in softwood lumber and provide for unrestricted trade in favorable market conditions. When the lumber market is soft, Canadian exporting provinces can choose either to collect an export tax that

ranges from 5% to 15% as prices fall or to collect lower export taxes and limit their export volumes. The agreement also included provisions to address potential Canadian import surges, provide for effective dispute settlement, distribute the antidumping and countervailing (anti-subsidy) duty deposits currently held by the United States, and discipline future trade cases. Most of the estimated \$5 billion in duties collected since 2002 were returned to Canadian interests (the importers record), but \$1 billion remained in the United States. The U.S. companies that brought the trade complaint received \$500 million, \$450 million of which was used to fund meritorious initiatives, and \$50 million was used to establish a bi-national industry council. Since July 1, the United States and Canada have undertaken a legal review of the text and have been engaged in discussion regarding clarifications to the agreement. Nonetheless, some forest economists believe that the dispute is far from over because of political and institutional differences between the two countries that could result in the launching of future trade complaints.

Summary of Timber Products and Energy Policy

The past year has been a tumultuous one for U.S. wood and energy markets, with oil prices soaring through the first half of 2008 and diving in its second half. Economic activity in the United States slowed in 2008 and continues to decline during the first quarter of 2009, as evidenced by the decline in real GDP growth of 2.7 % in the first quarter 2009, signaling continued weakness in major sectors of the economy. With GDP growth slowing during the second half of 2008 and into 2009, resulting partly from the decline in the housing sector as reflected in the decline in building permits, increasing unemployment and anxieties about the financial system (which resulted in a government bailout of American International Group (AIG) and banks), there is very little reason to expect better economic conditions over the next few months. Also, with more subprime loan resets and a continuing mortgage default crisis in 2009, the recovery of the U.S. economy is months away. Inflationary pressures and increased unemployment will add to the current U.S. housing woes. The future strength for other domestic and foreign trade sectors of the wood products industry also depends on the general economy, future lumber prices (which were weak in 2008), the declining housing sector, and the value of the dollar.

The U.S. furniture industry, in retreat since 1999, continued declining in 2008 as low-cost furniture imports and the global economic recession continues to erode the domestic industry market share. Employment in the domestic furniture industry has fallen more than 50% since 1999 (Fig. 2). The projections for 2009 show the furniture industry in continued decline but at a slower rate.

The downturn in the world economy has had a significant impact on wood and energy demand, and the near-term

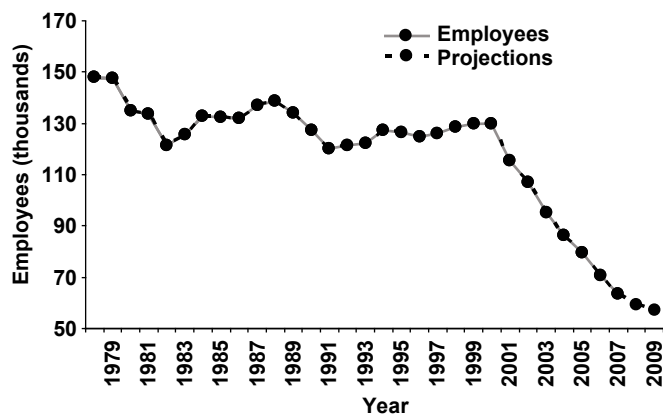


Figure 2—Employment in wood household furniture industry, 1976 to 2009.

future of U.S. wood and energy markets is tied to the downturn's uncertain depth and persistence. The growing concern about greenhouse gas (GHG) emissions and its effect on energy investment decisions, the increasing use of renewable fuels, the increasing production of unconventional natural gas, the shift in the transportation fleet to more efficient vehicles, and improved efficiency in end-use appliances are the result of U.S. energy concerns. The recovery of the world's financial markets is especially important for the wood and energy supply outlook, because the capital-intensive nature of most large projects makes access to financing a critical necessity.

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