



United States  
Department of  
Agriculture

Forest Service

Forest  
Products  
Laboratory

Research  
Note  
FPL–RN–0302

# U.S. Forest Products Annual Market Review and Prospects, 2002–2006

James L. Howard



## Abstract

This report provides general and statistical information on forests products markets in terms of production, trade, consumption, and prices. The current state of the U.S. economy is described. Market developments are described for sawn softwood, sawn hardwood, softwood log trade, wood-based panels, paper and paperboard, fuelwood, and forest product prices. Policy initiatives that can affect domestic markets and international trade in wood products are also discussed in some detail. Projections for the year 2006 are also presented.

Keywords: production, trade, prices

## Acknowledgments

This publication required contributions from a few dedicated individuals. Denise Ingram, Policy Analyst in International Programs, USDA Forest Service, assisted in drafting the Forest Certification in the Policy Initiatives section. Thomas Westcot, Trade Policy Coordinator, Foreign Agriculture Service, assisted in drafting the United States and Canada Softwood Lumber Dispute in the Policy Initiative section. Peter Ince, Research Forester, Forest Products Laboratory, assisted in drafting the Industry Competitiveness, and David McKeever, Research Forester, Forest Products Laboratory, consulted on lumber and solid wood conversions.

January 2006

Howard, James L. 2006. U.S. forest products annual market review and prospects, 2002–2006. Research Note FPL-RN-0302. Madison, WI: U.S. Department of Agriculture, Forest Service, Forest Products Laboratory. 9 p.

A limited number of free copies of this publication are available to the public from the Forest Products Laboratory, One Gifford Pinchot Drive, Madison, WI 53726–2398. This publication is also available online at [www.fpl.fs.fed.us](http://www.fpl.fs.fed.us). Laboratory publications are sent to hundreds of libraries in the United States and elsewhere.

The Forest Products Laboratory is maintained in cooperation with the University of Wisconsin. This article was written and prepared by U.S. Government employees on official time, and it is therefore in the public domain and not subject to copyright.

The use of trade or firm names in this publication is for reader information and does not imply endorsement by the United States Department of Agriculture (USDA) of any product or service.

The USDA prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720–2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250–9410, or call (800) 795–3272 (voice) or (202) 720–6382 (TDD). USDA is an equal opportunity provider and employer.

## Executive Summary

Economic activity in the United States was expected to continue strongly during the second half of 2005, as noted by the 3.6% projected growth in Gross Domestic Product (GDP) during the fourth quarter. These projections were made prior to storm disruptions to Gulf of Mexico exports that joined forces with nine weeks of falling gasoline supplies in August 2005, resulting in record-high gasoline prices. The long-term economic effect of storm disruptions on the U.S. economy is uncertain. The short-term effect on the U.S. economy will be lower growth than previously expected during the fourth quarter of 2005. The U.S. economy will likely expand at a slower rate in 2006 than predicted earlier in the year, according to 53 forecasters surveyed by the Federal Reserve Bank of Philadelphia. The predicted economic slowdown for 2006 could change if billions of dollars are pumped into the U.S. economy during the first quarter 2006 to rebuild the U.S. Gulf Coast. Prior to storm disruptions, forecasters expected year-over-year growth in real GDP to average 3.7% in 2005, up from their previous prediction of 3.4%. Measured on an annual-average basis, unemployment was expected to be 5.1% in 2005. The forecasters were expecting a slight decline in the 2006 unemployment rate. The forecasters saw prices rising slightly higher this year and then lowering next year. With continued low mortgage rates, the expectation for continued strength in the housing sector remains high. If the value of the dollar declines and lumber prices rise, this should bolster U.S. lumber and paper products production and trade.

## Contents

	<i>Page</i>
General Economic and Major Market Trends.....	1
Timber Products Production, Trade, and Consumption.....	2
Statistics and Prospects.....	2
Sawn Softwood.....	2
Sawn Hardwood.....	4
Softwood Log Trade.....	4
Hardwood Log Trade.....	4
Pulpwood.....	4
Softwood Plywood.....	4
Oriented Strandboard.....	5
Hardwood Plywood.....	5
Particleboard and Medium-Density Fiberboard.....	5
Hardboard.....	5
Insulation Board.....	5
Fuelwood.....	5
Summary of Timber Products.....	6
Policy Initiatives.....	6
Forest Certification.....	6
Industry Competitiveness.....	7
Trade and Tariff and Non-Tariff Barriers.....	7
United Nations Economic Commission for Europe Timber Committee—United States—Canada Softwood Lumber Dispute.....	8
References.....	9
Additional Source of Information.....	9

# U.S. Forest Products Annual Market Review and Prospects, 2002–2006

James L. Howard, Economist  
Forest Products Laboratory, Madison, Wisconsin

## General Economic and Major Market Trends

The U.S. economy will grow at a fast rate during the second half of 2005, then slow slightly more in 2006 than predicted earlier in the year, according to 53 forecasters surveyed by the Federal Reserve Bank of Philadelphia (2005). The forecasters expect real gross domestic product (GDP) to grow at an annual rate of 3.6% in the fourth quarter 2005. Likewise, they expect year-over-year growth in real GDP to be 4.2% and 3.6% the third and fourth quarters of 2005. They project annual growth of 3.7% in 2005 then declining slightly to 3.4% in 2006. The expected economic growth for the fourth quarter of 2005 and expectations for 2006 could be altered negatively because of disruptions in the supply of gasoline from the Gulf of Mexico, home to about 25% of U.S. oil and natural gas production. Hurricanes Katrina and Rita hit in August and September—halting for an unknown time the movements of 95.2% of the region's daily oil output. The immediate effect has been a dramatic increase in the retail price of gasoline at the pump.

Measured on an annual-average basis, unemployment is expected to be 5.1% for 2005, and forecasters expect unemployment to drop to 4.9% in 2006.

Inflation as measured by the Consumer Price Index is expected to average 2.9% in 2005 and fall to 2.4% in 2006. On an annual-average over annual-average basis, inflation in the GDP price index is projected to remain around 2.5% over the next 5 years.

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 91 million metric tons in 2004), which is mostly supplied by domestic production and imports from Canada (AF&PA 2005). The U.S. forest products industry annually harvests more than 475 million cubic meters of softwood and hardwood timber, manufacturing about 87 million cubic meters of lumber and 27 million cubic meters of structural panel products in 2004 (Howard, in preparation).

New housing construction, which accounts for more than a third of U.S. annual consumption of softwood, sawn wood, and structural panels and substantial volumes of other softwood and hardwood products, remained high through 2004 and through the first half of 2005. Total housing starts

increased 0.6% in July to a seasonally adjusted annual rate of 2,042,000 units. Three of four regions in the United States contributed to the July increase in housing starts. The largest increase of 9.1% was recorded in the Midwest (371,000 annual rate for July), followed by gains of 6.5% and 2.1% in the Northeast (196,000) and West (495,000), respectively. Authorizations for building permits increased in July by 1.6% to a seasonally adjusted 2,167,000, a 32-year monthly high. Single-family starts totaled 1,008,100 through the first 7 months of 2005, a 5.7% change from the same period one year earlier. Approximately 199,000 multifamily units were begun through July 2005, increasing 3.1% from one year earlier. Both sectors are on course to exceed their 2004 production levels. With the exception of the West, the other three regions are also on course to improve upon their 2004 performances (NAHB 2005).

In July, spending on private construction was at a seasonally adjusted \$856.2 billion, 1.8% above the revised June estimate of \$854.5 billion. Residential construction was \$615.8 billion in July, 0.2% above the revised June estimate of \$614.6 billion. Nonresidential construction was at a seasonally adjusted \$240.4 billion in July, 0.2% above the revised June estimate of \$239.9 billion. The National Association of Home Builders (NAHB 2005) forecast calls for the housing sector to remain strong, with starts and sales for 2005 ending slightly above 2004 levels.

Investment in residential repair and remodeling kept pace with the strong new residential construction market in 2004 that continued into 2005. Expenditures for improvements and repairs of residential properties were at a seasonally adjusted annual rate of \$215.2 billion in the first quarter of 2005. This estimate is 6.5% above the fourth-quarter 2004 estimate of \$202.1 billion. Expenditures for maintenance and repairs to all properties amounted to a seasonally adjusted annual rate of \$52.8 billion during the first quarter of 2005, increasing over the \$44.7 billion in the fourth quarter of 2004. Improvements amounted to \$162.4 billion in the first quarter of 2005, exceeding the \$157.5 billion in improvements during the fourth quarter of 2004.

Two of three major indicators of demand for wood products increased in the first two quarters of 2005 relative to 2004:

- Industrial production—an important demand determinant for pallet lumber, containerboard, and some grades of paper—increased 4.2% in 2004, and second-quarter production was up after also posting gains early in the first quarter of 2005.

**Table 1—Selected U.S. economic indicators, 2002–2006**

Indicator	Actual			Estimated	
	2002	2003	2004	2005	2006
<sup>a</sup> Gross Domestic Product (billion 2000 dollars)	10,487	11,004	11,735	12,001	12,646
<sup>b</sup> New housing starts (thousand units)	1.710	1.854	1.950	2.014	1.996
<sup>b</sup> Mobile home shipments (thousand units)	168	131	130	133	135
<sup>c</sup> Nonresidential investment in structures (billion 2000 dollars)	251.6	237.4	240.7	241	243
<sup>d</sup> Total industrial production (Index: 1997 = 100)	111	110.9	115.5	118.1	119.1
<sup>e</sup> Furniture and related products (Index: 1997 = 100)	106	107.3	108.9	107	108
<sup>e</sup> Paper products (Index: 1997 = 100)	94.4	92.3	94.8	95.8	96.4

<sup>a</sup>Economic Indicators, June 2005.

<sup>b</sup>National Association of Home Builders, Housing Economics, July 2005.

<sup>c</sup>Economic Indicators, June 2005.

<sup>d</sup>Economic Indicators, June 2005.

<sup>e</sup>Federal Reserve Bulletin, August 2001 through July 2005.

- Furniture and related products—a determinant of high-grade lumber production—decreased 1.8% in the first two quarters of 2005 compared with the 2004 average.
- Paper products output—a determinant of pulpwood and wood residue use, as well as recycled fiber availability and use—increased slightly during the first two quarters of 2005 compared with the last half of 2004. The index (1997 = 100) of paper products output for the first half of 2005 was at 95.8, 1.0% ahead of the second half of 2004.

In summary, housing starts should remain strong in 2005, after a very strong showing in 2004, and activity in the principal markets for U.S. timber was also slightly higher in 2004 than in 2003. After a strong start during the first two quarters of 2005, growth is expected to moderate for the rest of the year. Although the rate of growth is slowing, most analysts predict that conditions favorable to the growth of timber markets will continue. 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 the Table 2. All volumes are reported in 1,000 cubic meters. Figures for 2005 and 2006 are estimates.

### Sawn Softwood

Housing and other construction markets have been strong in 2005 and are likely to finish the year at slightly higher levels than those recorded a year ago, continuing to drive softwood lumber consumption. According to the Western

Wood Products Association, during the first 5 months of 2005, softwood lumber consumption increased 7.0% from last year's record pace. Shipments of softwood lumber from western mills increased 6.8% during the first 5 months of 2005 compared with 2004 shipments (WWPA 2005). Production increased in the West by 8% in this period, whereas production in the southern pine region increased 0.2%. Apparent consumption for the first 5 months of 2005 was 62.9 million cubic meters, 7% above the apparent 58.8 million cubic meters for the first 5 months of 2004. The U.S. housing construction industry is predicted to remain strong through 2005. Timber production therefore should remain strong after its strong start this year.

Sawn softwood imports increased 9.8% during the first 5 months of 2005 relative to the same time period a year ago. The volume of Canadian imports increased by 6.4% over this period. Canadian imports constituted 89% of all sawn softwood imports. However, other suppliers such as Europe were able to increase their share of the U.S. market. Total sawn softwood imports were 55.5 million cubic meters in 2004, an increase of 10.8% over 2003.

During the first 5 months of 2005, U.S. exports increased 3.3% compared with exports for the same period in 2004. Exports to Canada increased 19.6%, exports to Japan fell 38.3%, and exports to Mexico fell 10%.

Production of sawn softwood increased 4.1% in the first 5 months of 2005 compared with the same period in 2004. In 2004, 66.5 million cubic meters of sawn softwood was produced. Production of sawn softwood for 2005 is forecast to exceed 2004 levels.

**Table 2—Prospects for wood and wood products**

Sawn softwood				Oriented strandboard (OSB)			
	2004	2005	2006		2004	2005	2006
Production	65,212	67,117	68,110	Production	14,271	14,362	14,408
Imports	57,816	58,113	59,444	Imports	8,724	8,888	9,005
Exports	1,937	2,300	2,342	Exports	171	190	195
Consumption	121,091	122,930	125,212	Consumption	22,824	23,055	23,218
Coniferous logs				Particleboard			
	2004	2005	2006		2004	2005	2006
Production	177,043	178,360	179,462	Production	7,554	7,281	7,908
Imports	1,721	1,906	2,097	Imports	1,501	1,483	1,577
Exports	6,505	7,006	7,108	Exports	400	440	443
Consumption	172,259	173,260	174,451	Consumption	8,655	8,324	9,042
Sawn hardwood				Medium-density fiberboard (MDF)			
	2004	2005	2006		2004	2005	2006
Production	25,851	27,860	27,865	Production	3,555	3,700	3,706
Imports	2,347	2,482	2,707	Imports	1,705	1,740	1,851
Exports	3,013	3,175	3,460	Exports	211	269	275
Consumption	25,185	27,167	27,112	Consumption	5,049	5,171	5,282
Hardwood logs				Insulation board			
	2004	2005	2006		2004	2005	2006
Production	57,630	61,604	61,697	Production	3,000	3,055	3,155
Imports	187	200	205	Imports	311	310	305
Exports	2,154	2,172	2,180	Exports	106	115	117
Consumption	55,663	59,632	59,722	Consumption	3,205	3,250	3,343
Coniferous plywood				Roundwood pulpwood			
	2004	2005	2006		2004	2005	2006
Production	12,979	13,015	13,000	Production	171,024	171,702	171,914
Imports	2,050	1,880	1,901	Imports	627	628	604
Exports	360	330	333	Exports	997	1,066	1,109
Consumption	14,669	14,565	14,568	Consumption	170,654	171,264	171,409
Non-coniferous plywood				Hardboard			
	2004	2005	2006		2004	2005	2006
Production	1,947	2,055	2,166	Production	1,211	1,280	1,295
Imports	1,896	2,054	2,102	Imports	1,308	1,450	1,545
Exports	258	255	346	Exports	296	293	295
Consumption	3,585	3,854	3,922	Consumption	2,223	2,437	2,545

## Sawn Hardwood

Sawn hardwood production increased by 4.4% to 25.8 million cubic meters in 2004. Imports increased by 25.3% compared with the same period in 2003. During the first 5 months of 2005, the rise in exports exceeded the rise in imports: exports rose 48.0% and imports 13.9%. Exports to European Union countries increased 1.7%, and exports to Pacific Rim nations fell 12.7%. Given the increase in U.S. production, volatile trade figures, and a strong housing market, apparent consumption for 2005 is forecast to increase slightly from the 2004 volume.

## Softwood Log Trade

Softwood log exports to the Pacific Rim decreased 14.2% in the first 5 months of 2005 compared with exports in the same period of 2004. Softwood log exports to the European Union increased by 17.3%. Total softwood log exports from the United States decreased 0.9% in the first 5 months of 2005 compared with 2004 exports; this level is well below export levels throughout the 1990s. During 2005, the decline in timber harvest from National Forests slowed to a lower rate than that in previous years. The largest volume of decline has been occurring in the Pacific Northwest. The U.S. South has undergone a steady increase in softwood log production, in part because of the private sector's ability to respond to the harvest decline in the West.

## Hardwood Log Trade

Hardwood log exports and imports increased during the first 5 months of 2005. Exports increased 15.9% and imports increased 26.3%, compared with this period in 2004. For all of 2004, exports to Canada fell 9.4% below 2003 levels. During the first 5 months of 2005, exports to the Pacific Rim increased 7.90% while exports to the European Union decreased 18.6%. During 2004, hardwood log imports from Canada were relatively unchanged from the previous year. In the first 5 months of 2005, hardwood log imports from Canada rose 18.7% compared with the same period in 2004. Canada traditionally provides about 95% of U.S. imports.

## Pulpwood

Roundwood production for pulp and wood-based panel mills was 171 million cubic meters in 2004, up from 2003. Roundwood pulpwood is expected to continue to increase slightly during 2005. Pulpwood supplied from residues is decreasing relative to roundwood. The roundwood portion of pulpwood was 142 million cubic meters in 2004, a 4.0% increase from 2003 (based on pulpwood receipts data from the Forest Resources Association (2005)). Trade patterns have continued to have a significant effect on paper and paperboard production and have affected pulpwood use. Exports of paper, paperboard, and converted products increased 6.4% in 2004. Imports of paper and paperboard increased by 0.7% during 2004. With a strong dollar and the renewed strength of the U.S. economy, paper and paperboard production increased 4.0% in 2004.

## Softwood Plywood

Softwood plywood production was 12.9 million cubic meters in 2004, according to APA–The Engineered Wood Association (APA 2005). This level of production was relatively unchanged from 2003. The volume of softwood plywood production fell throughout the 1990s, and the decline continued into 2003. Softwood plywood production for the first two quarters of 2005 decreased by 0.1% compared with the first two quarters of 2004. The APA's forecast that plywood production would decrease in 2005 is supported by the decline in production during the first two quarters.

Softwood plywood imports and exports both increased in 2004 compared with 2003 data. Imports rose sharply by 44.3%, and exports rose 11.9%. Softwood plywood imports increased 13.3%, and exports increased 14.5% during the first 5 months of 2005. Plywood exports to Canada decreased by 2.4% during the first 5 months of 2005, and plywood imports from Canada were unchanged. Apparent consumption of softwood plywood is expected to increase in 2005, even as more market share for structural panels continues to be taken by oriented strandboard (OSB).

## Oriented Strandboard

According to APA, OSB production for the first 5 months of 2005 was 2.1% above production compared with this same period in 2003 (APA 2005). In 2004, 12.6 million cubic meters of OSB was produced, compared with 12.0 million cubic meters in 2003.

In 2004, structural panel consumption increased 2.2% to 25.6 million cubic meters. Oriented strandboard consumption was a record 21.2 million cubic meters and constituted 59% of the structural panel total, a 1% share increase from 2003. About a quarter of this increase can be explained by the higher levels of housing starts. Because OSB now accounts for 59% of structural panel consumption (1% rise from 2003), OSB consumption is expected to continue to exceed plywood consumption. Structural panel production over the first 5 months of 2005 was 2.9% above the year earlier.

## Hardwood Plywood

Hardwood plywood production, including core material such as softwood plywood and OSB, was estimated at 2.0 million cubic meters in 2004, relatively unchanged from 2003 production. An increase of about 1% to 2% in hardwood plywood production is estimated for 2005, with total production decreasing to about 2.1 million cubic meters. Hardwood plywood imports increased 10.1% in the first 5 months of 2005 compared with the same period in 2004. If this trend continues, hardwood plywood imports will likely exceed 3.0 million cubic meters in 2005.

## Particleboard and Medium-Density Fiberboard

Information from the Composite Panel Association (CPA 2004) indicates that particleboard and medium-density

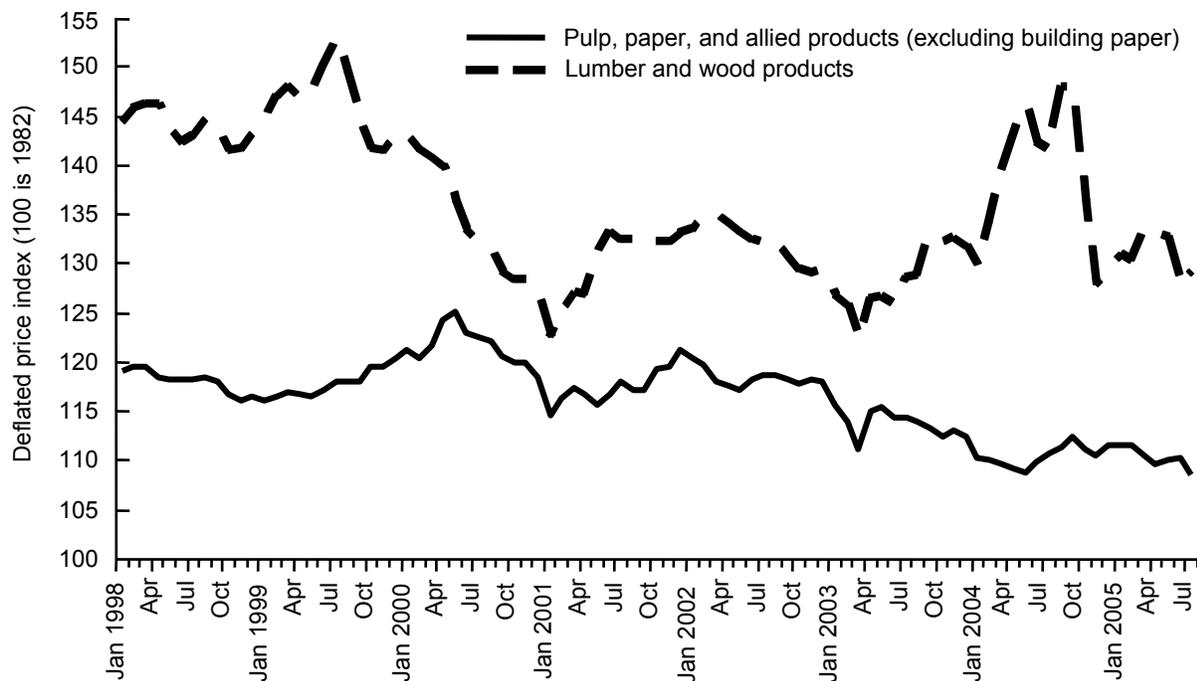


Figure 1—Recent trends in real producer prices of forest products (deflated with all-commodity Producer Price Index).

fiberboard (MDF) production both increased during 2004. Particleboard production was 7.6 million cubic meters, an increase of 5.7%, and MDF production was 3.6 million cubic meters, an increase of 32.3%. During the first 5 months of 2005, particleboard imports decreased by 3.8%, and MDF imports increased by 22.9% on a volume basis. Particleboard exports increased by 6.6%, and MDF exports increased by 9.9%.

### Hardboard

Based on data from the American Hardboard Association (AHA 2005), 1.1 million cubic meters of hardboard was produced in 2004; this level of production is expected to remain steady in 2005. Hardboard imports increased 29.6% in 2004, and this trend continued during the first 5 months of 2005 as imports increased 25%. Hardboard exports increased 56.3% in 2004 but decreased 1.8% in the first 5 months of 2005.

### Insulation Board

Information from the AF&PA (2005) showed that 2.7 million cubic meters of insulation board was produced in 2004, unchanged from 2003. 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 the most recent Department of Energy survey (DOE 2005) and adjusting for the 2004 winter weather and a declining trend in fuelwood use per household, fuel-

wood consumption was estimated to be 43.6 million cubic meters in 2004, a increase of 1.7% from 2003. Households use most fuelwood for heating and aesthetic enjoyment. Industry uses mill residues rather than roundwood for fuel. A small portion of roundwood fuel is used for electric power production. Use for electric power is limited by the low cost of coal and natural gas alternatives. Because of the rising cost of coal and natural gas, fuelwood consumption for 2005 is estimated to be above the 2004 level.

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 has continued to increase during the first half of 2004, peaking in the third quarter, after a brief decline during the second quarter. Changes in the price of softwood lumber 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 2004. 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. In contrast, the PPI of prices in the pulp and paper sector has exhibited considerably less

short-term volatility. The period of declining prices from the previous peak (1994–1995) ended in 1997, and by early 1998 the composite index had reached the level of the mid-1990s. In deflated terms, the composite index has had little volatility and a flat to declining trend.

### Summary of Timber Products

Economic activity in the United States was strong during the first three quarters of 2005, as evidenced by the predicted year-over-year growth of 3.7%, signaling continued strength in major sectors of the economy. Although GDP growth slowed during the second half of 2005, a number of factors, such as a strong housing sector and favorable monetary policy, are likely to continue to boost activity as the economy moves through the second half of the year. With continued low mortgage rates, the expectation for continued strength in the housing sector is high. The future strength for other domestic and foreign trade sectors of the wood products industry depends on future lumber prices, which have been strong so far this year, and the value of the dollar. A decline in the value of the dollar should bolster U.S. wood and paper products exports. The rebuilding following hurricane Katrina could provide a boost to the wood sector.

## Policy Initiatives

### Forest Certification

The private sector is advancing certification to provide a market-based approach to improving forest management. Certification is the process through which some entity evaluates the management practices of a particular forest property or company and assures markets and consumers that it meets their standards for a well-managed forest. This certification can be awarded by a neutral and independent third party or by a second-party program that enables an organization to endorse the practices of its affiliate or achieve a certain management standard as a condition of membership in the organization. Several certification systems operate in the United States and are a mix of for-profit, nonprofit, third-party, and second-party organizations. One estimate indicates that almost 17% of timber lands in the United States were enrolled in one of the five major certification programs in spring 1999, with that number growing to almost 30% by summer 2002. Large private industrial holdings make up most of the certified properties. The State forests are the predominant group among public sector enrollees; small non-industrial private forest owners constitute the smallest share, although that group owns the largest share of forest lands.

Major certification systems operating in the United States include the Sustainable Forestry Initiative (SFI), The Forest Stewardship Council (FSC), American Tree Farm System (ATFS), International Standards Organization (ISO) 14001, and Green Tag Forestry.

### Sustainable Forestry Initiative

The SFI ([www.aboutsfi.org/core.asp](http://www.aboutsfi.org/core.asp)) is a third-party certification system. As of July 2004, over 93 million acres of forest lands in North America had been independently certified to the SFI Standard: 38.5 million acres in the United States and the remainder in Canada. Of the leading certification schemes in operation in the United States, only the SFI program has a strict separation between standard setting and accreditation of certifying bodies. Recognized international protocols (The International Standards Organization (ISO)) for auditing explicitly require that these functions be separate. The SFI recently began offering chain-of-custody certification on a limited scale. The annual report for the SFI can be accessed on the web ([www.sampson-group.com/sfi/8thAnnualSFIPprogressRpt.pdf](http://www.sampson-group.com/sfi/8thAnnualSFIPprogressRpt.pdf)).

### Forest Stewardship Council

Founded in 1993, the FSC ([www.fsc.org](http://www.fsc.org)) certifies almost 15 million acres (6.1 million hectares) in the United States. Over the past 10 years, 42 million hectares in more than 60 countries have been certified according to FSC standards. Several thousand products are produced using FSC-certified wood and carry the FSC trademark. The FSC operates through its network of National Initiatives in more than 30 countries. The FSC is an independent, not-for-profit, non-governmental organization based in Bonn, Germany, that provides standard setting, trademark assurance, and accreditation services for companies and organizations interested in responsible forestry. Among certifiers, FSC is unique because for years it has provided participants with a chain of custody certification.

### American Tree Farm System

Certification of tree farms through the ATFS, under the oversight of the American Forest Foundation, is the oldest and largest voluntary third-party verification process in the United States. The ATFS has been certifying the practice of sustainable forestry since 1941. Currently, ATFS has 33 million acres (13 million hectares) of privately owned forestland and 51,000 family forest owners, in 46 states, committed to excellence in forest stewardship. The ATFS certifies 12 million acres (5 million hectares).

The ATFS has modernized its standards and guidelines for tree farm certification to address contemporary benchmarks for sustainability. It established minimum education and experience requirements for certifying foresters and forest technicians, and it developed a national standardized training curriculum for its inspectors.

Newly developed by ATFS, Group Certification is a third-party auditing process for evaluating groups of landowners and certifying their well managed forests under a single certificate held by the group organization.

### **ISO 14001**

The ISO was formed in 1947. It promotes worldwide standards, international consistency, and world trade. The ISO 14000 standards were developed to support the objective of sustainable development discussed at the 1992 Earth Summit of the United Nations Conference on Environment and Development. The ISO 14001, adopted in 1996, does not establish performance requirements or specific criteria that define sustainable forestry. Rather, the ISO standard establishes a system for auditing, monitoring, and improving environmental performance within a company to determine if the organization is achieving its stated environmental policies and objectives. It also allows organizations to self-declare (first-party) that they are conforming to standards, although it does not preclude organizations from obtaining third-party registration of an Environmental Management System (EMS). Because it is not a labeling program, no chain-of-custody certification is conducted. The American National Standards Institute also approves the ISO 14001. About 1.3 million acres (527,000 hectares) are enrolled in ISO 14001. Under requirements of the 2005 National Forest Management Act Planning Regulations, the scope of the implementation of ISO 14001 EMS in the USDA Forest Service provides the policy mandates for the Forest Service to implement EMS on National Forest Units ([www.iso.ch/iso/en/isonline.frontpage](http://www.iso.ch/iso/en/isonline.frontpage)).

### **Green Tag Forestry**

Green Tag Forestry is a third-party certification system that was developed by the National Forestry Association in cooperation with the Association of Consulting Foresters and the National Woodland Owners Association. It is national in scope and the only program intended solely for use by private forest landowners. A Green Tag forest is woodland whose stewardship has been certified as incorporating good forestry practices to assure a balance of natural diversity and sustainable forest productivity. Green Tag certification is available in all 50 states. The program provides recognition to landowners who practice responsible and sustainable woodland stewardship. This recognition may bring a market premium as a “green-certified” forest product. Certified woodland owners are awarded a certificate and may display a Green Tag sign and Green Tag labels on products produced from the certified property. Green Tag certification comprises about 66,000 acres (27,000 hectares) in 12 states ([www.greentag.org](http://www.greentag.org)).

### **Industry Competitiveness**

Economic globalization has had a permeating influence on the U.S. economy since the early 1990s, and thus a permeating influence on the U.S. forest sector as well. With liberalized trade policies and a strong U.S. economy in the 1990s, the value of the U.S. dollar soared from 1996 to 2002. The United States was clearly the global engine of economic growth in the 1990s, more than doubling the value of imported goods (from less than \$0.5 trillion dollars in 1990

to an average of \$1.2 trillion dollars each year from 2000 to 2004), creating the largest merchandise trade deficit in history (\$549 billion dollars in 2003, a five-fold expansion since 1992). The flood of competitive goods from overseas reduced output and profits for U.S. manufacturers, resulting in consolidation, downsizing, and other structural changes in the forest sector as well as all manufacturing.

The forest sector broadly subtends a spectrum of enterprises and activities ranging from forestry and forest management to forest products industries and other forest-dependent business enterprises. In the United States, the forest sector encompasses both public and privately owned forest lands, from which wood raw materials are harvested to produce forest products. Primary forest product industries include pulp, paper, and paperboard, and the so-called ‘solid-wood’ industries, including lumber, particleboard, plywood, veneer, posts, poles, and other wood products. A number of large secondary industries or other economic sectors depend heavily on primary forest products, such as the shipping and warehousing sector—dependent on corrugated boxes, shipping containers, and wooden pallets; the publication and print advertising sector—dependent on newsprint and printing paper; the housing and construction sector—dependent on softwood and hardwood lumber, particleboard, and plywood; and the furniture sector—dependent on hardwood lumber, veneer, and particleboard. In general, globalization and consolidation have affected industries with market exposure to international trade, or where structural change in the overall economy affects domestic demands for products.

Overall U.S. industrial production (measured by the Federal Reserve index) began to weaken during the Asian financial crisis of 1997, then peaked in the year 2000 and dropped precipitously in 2001, along with rollbacks in capital investment expenditures and business growth. The 2001 recession (measured by consecutive quarterly declines in U.S. GDP) was thus largely a business-led recession, reflecting primarily declining profitability and growth in U.S. manufacturing and business in general. The economic stimuli of lower interest rates and tax reductions helped restore economic growth, and contributed to a housing boom in 2002 through most of 2005. Nonetheless, U.S. industrial output was not as quick to respond and only began to show a clear trend toward recovery late in 2003 into 2004.

### **Trade and Tariff and Non-Tariff Barriers**

The United States has identified a number of trade practices that have created substantial barriers to trade in wood products. Persistent market access barriers in the wood sector are combined with high and unbalanced tariffs that significantly impair the competitiveness of the U.S. forest products industry.

U.S. tariffs on imports of wood products are at or near zero, with only a few wood product categories subject to higher rates. These higher rates apply to a limited number of wood products, and even then, apply to only a limited number of

countries, since most countries are eligible for treatment under the Generalized System of Preferences or other trade agreements.

In addition to direct tariff measures, certification, codes and standards, subsidies, and phytosanitary measures can all serve as non-tariff trade barriers.

The U.S. Government has been working closely with the U.S. wood products industry to ensure full implementation of the 1990 U.S.–Japan Wood Products Agreement designed to open the Japanese wood market. Through regular consultations between the U.S. and Japanese governments and consistent U.S. industry pressure and technical exchanges, some progress has been made in the areas of standards, regulations, and product certification. Serious obstacles remain to increased value-added exports because of high tariffs that deny U.S. producers fair and open access to the Japanese market.

Japanese opposition to the elimination of wood tariffs continues to undermine U.S. efforts to achieve the elimination of wood product tariffs on a sectoral basis under the World Trade Organization (WTO). Japan's unwillingness to make even modest steps toward liberalization in this area has effectively left market access barriers in place that affect exporters in many other countries as well. Japan is also one of several countries that are strong proponents of multifunctionality, arguing that non-trade concerns, or the multifunctionality of their agricultural interests, justifies the maintenance of agricultural subsidies and relatively high levels of border protection. Japan, along with others, has employed this argument to pursue non-trade objectives such as strengthening the socioeconomic viability and development of rural areas, food security, and environmental protection.

The Japanese government is in the process of establishing a certification and labeling scheme for forest products. According to a report recently issued by Japan's Ministry of Agriculture, Forestry and Fisheries (MAFF 2004), the scheme is expected to contribute to the revitalization of the domestic forest products industry. It is believed that the use of a label will serve to promote domestic forest products as being environmentally sound. An agency within the Japanese government is expected to be responsible for the development of any new scheme, despite the fact that the official government stance is to avoid direct involvement in this issue.

### **United Nations Economic Commission for Europe Timber Committee—United States—Canada Softwood Lumber Dispute**

The history of the softwood lumber issue dates back to the early 1980s. In April 2001, following the expiration of the 1996 U.S.–Canada Softwood Lumber Agreement, the U.S. industry filed countervailing duty and antidumping petitions

with the Department of Commerce (DOC) and the International Trade Commission (ITC), charging that Canadian Provinces were unfairly subsidizing softwood lumber producers, allowing Canadian companies to sell softwood lumber below cost in the U.S. market. In March 2002, the DOC ruled in favor of the U.S. industry, announcing final countervailing duty rates of 18.79% and antidumping margins ranging from 2.18% to 12.44%. The DOC subsequently reduced the countervailing duty and antidumping rates through an administrative review in December 2004. The combined duty rate now stands at 20.2%.

Canada has challenged the U.S. countervailing and antidumping duties on its softwood lumber in the WTO and through the North American Free Trade Agreement (NAFTA) dispute-resolution process.

In 2004, a NAFTA panel rejected the ITC's threat of injury determination, which is required to impose the countervailing and antidumping duties. The United States appealed the NAFTA decisions, and on August 10, 2005, the Extraordinary Challenge Committee of NAFTA (ECC) ruled against the United States. Canadian officials have called for the removal of the duties and return of deposits already collected based on the ECC decision. The United States has not lifted the duties since the ITC's threat of injury determination, made in response to a WTO remand in November 2004, remains in place. Additionally, U.S. officials maintain that NAFTA rulings are prospective and that there is no legal requirement to return the duties already collected.

The U.S. Trade Representative publicly announced that on August 29, 2005, a WTO panel found the ITC's November 2004 injury determination—known as its Section 129 determination—to be entirely consistent with U.S. obligations under the WTO. The WTO panel finding confirms that dumped and subsidized imports of softwood lumber from Canada threatened to materially injure the U.S. industry. Despite the panel's affirmation of the U.S. injury findings, the U.S. Trade Representative announced that the United States believes that back and forth litigation will not solve this 20-year-old issue and that the best course of action is to come to a negotiated solution. The final non-confidential WTO panel finding on the ITC's Section 129 determination is expected to be released in October 2005. In media responses to the WTO panel finding, Canadian officials have said that Canada would continue to challenge the ITC threat of injury determination in the U.S. Court of International Trade in an effort to revoke the 21% antidumping and countervailing orders on Canadian softwood imports, and that Canada would continue to seek a reimbursement of more than \$4 billion in duties collected by the United States since the duties were imposed in 2002. Canadian officials have maintained that a favorable U.S. Court of International Trade finding, which would likely come in 2006, would force the United States to comply with an ECC ruling that upheld a NAFTA panel's demand that the ITC find that U.S. producers were not threatened with injury.

Talks to end the dispute were conducted as recently as July 18, 2005. Further talks, originally scheduled for August 22, were cancelled following announcement that duties would remain despite the ECC decision.

## References

AF&PA. 2005. Paper, Paperboard, and Wood Pulp—Monthly Statistical Summary. Washington, DC: American Forest and Paper Association.

AF&PA. 2005. Wood Statistical Roundup—Monthly and Quarterly Statistical Supplement. Washington, DC: American Forest and Paper Association.

AHA. 2005. Hardboard shipment numbers. Palatine, IL: American Hardboard Association ([www.hardboard.org](http://www.hardboard.org)).

APA. 2005. APA economics report. Tacoma, WA: APA—The Engineered Wood Association.

BEA. 2005. Survey of Current Business [Monthly]. Washington, DC: U.S. Department of Commerce, Bureau of Economic Analysis.

BEA. 2005. U.S. Bureau of Economic Analysis. International Economic Accounts. Council of Economic Advisors. 2005. Economic Indicators. Washington, DC: U.S. Government Printing Office. June 2005.

CPA. 2004. Particleboard and medium-density fiberboard annual production and shipments. [Annually]. Gaithersburg, MD: Composite Panel Association.

DOE. 2005. Monthly Energy Review. DOE/EIA-0035 (2004/04). Washington, DC: Energy Information Administration, U.S. Department of Energy. <http://www.eia.doe.gov/emeu/mer/contents.html>

Federal Reserve Bank of Philadelphia. 2005. Economic Research. Survey of Professional Forecasters. Release Date: August 15, 2005. [www.Phil.Frb.Org/files/spf/survq305.html](http://www.Phil.Frb.Org/files/spf/survq305.html)

FRA. 2005. Annual Pulpwood Statistics Summary Report 1999–2003. Rockville, MD: Forest Resources Association.

Howard, James L. In preparation. U.S. Timber Production, Trade, Consumption, and Price Statistics 1965–2005.

MAFF. 2004. Annual Report on Food, Agriculture and Rural Areas in Japan. Tokyo: Ministry of Agriculture Forest and Fisheries ([www.MAFF.Go.jp/eindex.html](http://www.MAFF.Go.jp/eindex.html))

NAHB. 2005. Housing Economics. Washington, DC: National Association of Home Builders. July 2005. [www.nahb.org/](http://www.nahb.org/)

U.S. Federal Reserve System, Board of Governors. 2005. Federal Reserve bulletin [Monthly]. July 2005. Washington, DC.

WWPA. 2005. Lumber Track. Portland, OR: Western Wood Products Association. May 2005.

## Additional Source of Information

Producer Prices and Price Indexes [Monthly and Annually]. 2004. Washington, DC: U.S. Department of Labor, Bureau of Labor Statistics.