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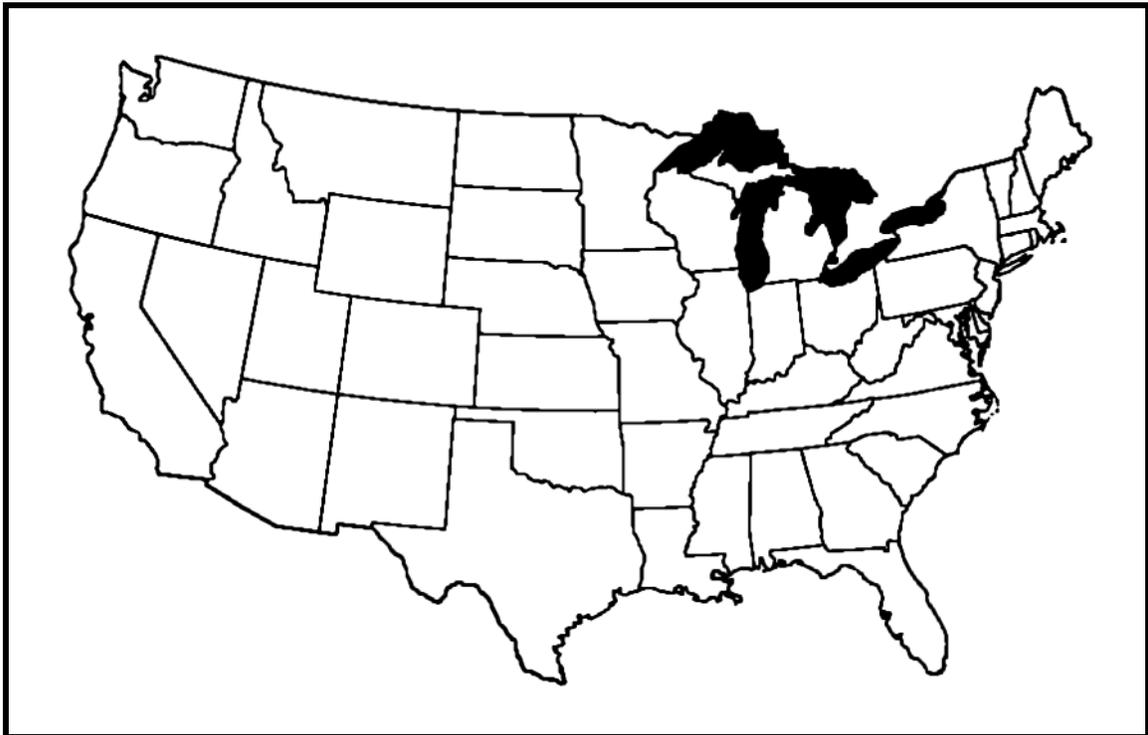
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U.S. Forest Products Annual Market Review and Prospects, 2000–2003

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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 United States 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. Detailed information and projections for the year 2003 are presented.

Keywords: production, trade, prices

Executive Summary

Economic activity in the United States picked up noticeably during the first half of 2002 as noted by the strong 5.6% growth in GDP, signaling an end to the economic recession that began in the United States in March 2001. Although GDP growth slowed during the second quarter this year, 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 2002. 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 volatile so far this year, and the value of the dollar. If the value of the dollar declines, this should bolster U.S. wood and paper products exports.

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U.S. Forest Products Annual Market Review and Prospects, 2000–2003

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General Economic and Major Market Trends

The United States economy slowed in 2001. As measured by the gross domestic product (GDP), economic activity rose at an annual rate of 1.1% to \$9,328.6 billion (1996 dollars), an increase from \$9,224.4 billion (1996 dollars) in 2000. GDP increased 1.3% during the first quarter and fell 1.3% during the third quarter before increasing 0.2% during the fourth quarter of 2001. The average rate of growth in the current expansion, which began in the second quarter of 1991, is 3.6%. After growing rapidly until the middle of 2000, the economy showed signs of moderating in the second half of that year, before falling to a slower rate of growth in 2001.

After increasing 2.9% in the fourth quarter of 2001, up from -0.1% in the third quarter, growth of gross domestic purchases increased 5.6% in the first quarter of 2002 before decelerating to 2.8% growth in the second quarter. The current economic expansion, now in its 12th consecutive year, has slowed, reflected by the first 6 months of 2002. Overall rates of inflation were higher during the first half of 2002 than they were during the last half of 2001. Also, some economic forecasts are calling for accelerated growth for the last half of 2002 as well as higher prices and a less than favorable employment outlook. Despite this outlook, economic expansion continues, although at a declining rate of growth. Advanced estimates of GDP showed an increase in economic growth to an annual rate of 3.0% for 2002 as a whole, down from the 5.0% rate in the first quarter but greater than the 1.1% rate during the second quarter.

Growth in GDP in the first half of 2002 shows the continued growth of the economy, although the rate of growth is below the 3.6% average rate for the current expansion. Leading economic indicators are mixed; after increasing 1.1% in the first quarter, real personal consumption expenditures (PCE) increased 2.5% in the second quarter. Gross domestic purchases increased slightly ahead of GDP. The slowdowns in consumer spending, government spending, and inventory investment were mainly accountable for the deceleration in real GDP in the second quarter. The U.S. deficit on trade in goods and services widened about \$27 billion in the first quarter as a surge in imports overwhelmed a slower expansion of exports.

Other contributors to the second-quarter decline in GDP growth were private nonresidential fixed investment, larger decreases in exports compared with that in the first quarter, and a slowdown in consumer spending. Nonresidential fixed investment declined 5.8% during the first quarter from the fourth quarter of 2001 before declining 1.6% in the second quarter of 2002. This was below its 9.5% average rate of growth for the current expansion and subtracted almost 0.4 percentage points from GDP growth. Sales of computers and peripheral equipment and software increased during the fourth quarter of 2001. Real final sales of computers increased 28.9% in the fourth quarter of 2001 after decreasing in the second and third quarters. Real final sales of computers fell 7.8% in the first quarter of 2002 before increasing 9.1% during the second quarter. A swing from inventory liquidation to inventory accumulation contributed 1.15 percentage points to GDP growth in the second quarter; a sharp cut in the pace of liquidation had contributed 2.60 percentage points to first-quarter growth. In addition, after increasing 1.1% in the first quarter, prices of personal consumption expenditures increased 2.5%. Energy prices increased sharply in the second quarter of 2002, and food prices increased less than half as much as in the first quarter. After increasing 1.2% the first quarter, the GDP price index increased 2.1% in the second quarter. Import and export prices, which are both components of this index, increased in the second quarter.

The U.S. economic forecast for 2002 calls for acceleration in GDP growth—from 1.1% in 2001 to 3.5% in 2003. Early estimates for 2002 indicate growth in GDP at about 3.0%. The pace of economic activity in the United States increased in the first half of 2002. Some of the forces that had been restraining spending during 2001 abated. The Federal Reserve had moved aggressively in 2001 to counter the weakness that had emerged in aggregate demand; by the end of the year it had lowered the federal funds rate to 1¾%, the lowest level in 40 years. The economy expanded rapidly early in 2002, and economic activity continues to increase but at a slower pace. The improved forecast is driven by monetary and fiscal policies, as well as other factors, that should lead to a strengthening in final demand over the coming months. Business spending on equipment and software will likely be boosted by rising sales, improving profitability, tax incentives, and the desire to acquire new capital embodying ongoing technology advances.

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 84 million metric tons in 2001), which is mostly supplied by domestic production and imports from Canada (American Forest & Paper Association, AF&PA). The U.S. forest products industry annually harvests more than 485 million cubic meters of softwood and hardwood timber, manufacturing about 87 million cubic meters of lumber and 25 million cubic meters of structural panel products in 2001.

New housing construction, which 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, remained high through 2001 and into the first half of 2002. A comparison of the first half of this year to the first half of last year indicates that overall starts, not seasonally adjusted, grew 3.9% to 840,100. All the gain between these two periods occurred in the single-family sector, where output rose to 680,100 units. Multifamily starts in the first half of 2002 were unchanged when compared with the first half of 2001. Total housing starts for June 2002 were reported at an annual rate of 1.672 million, representing an increase of 4.1% from May. The mobile home market bottomed out during the first half of 2002. The pace of shipments so far this year is only about half the volume shipped two years earlier. Comparing the first half of 2002 to 2001, the greatest strength lay in the Northeast where output advanced 6.1% to an annual rate of 175,000. The South registered the largest month-to-month decline of 7.6%, to an annual rate of 744,000. Production in the West declined by 2.2% in June to a second-quarter average of 399,000, while June starts in the Midwest were flat at a seasonally adjusted 344,000. In June, the real value of new residential construction remained relatively flat for the third consecutive month at a seasonally adjusted annual rate of \$239.5 billion. The second quarter averaged a seasonally adjusted \$238.2 billion, up 1.7% from the first quarter and 4.2% above the fourth quarter of last year.

In contrast to residential construction is nonresidential activity, where the values for new construction appear to be descending fast. The value of all nonresidential construction was at an annual rate of \$134.1 billion in June 2002, down 3.4% from May and nearly 12% below the 2002 high of \$152.1 billion reached in January. The National Association of Home Builders (NAHB) forecast calls for the housing sector to remain strong, with only a minor setback in the second half of 2002, with starts and sales ending the year above 2001 levels.

Along with the strong new residential construction market in 2001, investment in residential repair and remodeling kept pace as the average expenditures for four quarters rose 2.2% to \$156.8 billion from \$153.4 billion in 2000. Expenditures

for improvements and repairs of residential properties in the first quarter 2002 were at a seasonally adjusted annual rate of \$168.5 billion, 14% above the fourth quarter 2001 estimate of \$147.8 billion. Expenditures for maintenance and repairs to all properties amounted to a seasonally adjusted annual rate of \$46 billion during the fourth quarter of 2001 before declining to \$43 billion in the first quarter 2002.

Two of three indicators of demand for wood products declined in 2002 relative to 2001:

- Industrial production—an important demand determinant for pallet lumber, containerboard, and some grades of paper—rose 0.6% in June to 140.4% of its 1992 average; second-quarter production was up after posting gains for seven consecutive months.
- Furniture and fixtures output—a determinant of high-grade lumber production—fell 4.8% in the first half of 2002 and continued to fall through June to a first-half low of 134.4% of its 1992 average.
- Paper products output—a determinant of pulpwood and wood residue use, as well as recycled fiber availability and use—declined 5.3% over the first half of 2002 compared with the same period in 2001. The index (1992=100) of paper products output for the first half of 2002 remains below the 108.1 annual average for 2001.

In summary, housing starts should remain strong in 2002, after a strong showing in 2001; activity in the principal markets for U.S. timber was also slightly lower in 2001 than in 2000. After a strong start during the first two quarters of 2002, growth is expected to moderate for the rest of the year. Even though 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

Sawn Softwood

Housing and other construction markets have been strong in 2002 and are likely to finish the year only slightly below the levels recorded a year ago for softwood lumber consumption. According to the Western Wood Products Association (WWPA), during the first 4 months of 2002 softwood lumber consumption rose 6.9% from last year's pace; shipment of softwood lumber from western mills rose 11.7% during the first four months of 2002 as compared with 2001 shipment. Production increased in all regions except the California redwood region; the southern pine region has shown the second largest increase, rising 7.5% for the first 4 months in 2002. Apparent consumption for the first 4 months of 2002 was 36.9 million cubic meters, 8.6% above the apparent 33.8 million cubic meters for the first 4 months of 2001.

Table 1—Selected U.S. economic indicators, 1999–2003

Indicator	Actual			Estimated	
	1999	2000	2001	2002	2003
^a Gross domestic product (billion 1996 dollars)	8,515.7	9224.4	9328.6	9,370.2	9,470.2
^b New housing starts (million units)	1.647	1.573	1.603	1.640	1.587
^b Mobile home shipments (thousand units)	348	250	192	184	180
^c Nonresidential investment in structures (billion 1996 dollars)	177.6	179.7	173.4	172.0	172.0
^d Total industrial production (Index: 1992 = 100)	139.4	145.7	140.1	139.1	139.1
^e Furniture and fixtures (billion 1992 dollars)	125.5	142.9	138.7	141.0	141.0
^e Paper products (Index: 1992 = 100)	116.2	116.1	108.1	105.4	105.4

^a*Survey of Current Business*, August 2002.

^bNational Association of Home Builders, *Housing Economics*, August 2001.

^cValue of Construction Put in Place, April 2002.

^d*Economic Indicators*, July 2001.

^eFederal Reserve Bulletin, August 2000, 2001, 2002.

If U.S. housing construction slumps, timber production is likely to drift downward after the strong start this year.

Sawn softwood imports rose 9.5% during the first 4 months of 2002 relative to the same time period of a year ago. The volume of Canadian imports increased by 6.8% over this period. Canadian imports constituted 93% of all sawn softwood imports. However, other suppliers such as Europe continued to increase their share of the U.S. market. Total sawn softwood imports were 47.4 million cubic meters in 2001, an increase of 3.4% over 2000.

During the first 4 months of 2002, U.S. exports fell 25.1% compared with exports for the same period in 2001. Exports to Canada declined 34.8% over the first 4 months of 2002. Exports to Japan fell 48.6% for the first 4 months of 2002 compared with the first 4 months of 2001, and exports to Mexico fell 9.3% over the first 4 months of this year compared with last year.

Production of sawn softwood increased 8.4% in the first 4 months of 2002 compared with the same period in 2001. In 2001, 58.9 million cubic meters of sawn softwood was produced. The production of sawn softwood for 2002 is forecast to remain close to production levels of a year ago.

Sawn Hardwood

Sawn hardwood production declined by 6.5% to 27.9 million cubic meters in 2001. Imports declined by 18.8% compared with imports in the same period in 2000. During the first 4 months of 2002, the rise in imports exceeded the rise in exports: imports rose 8.7% and exports 4.4%. Exports to European Union countries declined 2.1%, and exports to Pacific Rim nations rose 25.5%. Given the estimated growth rates for production and decreasing trade figures, and a strong housing market, apparent consumption for 2002 is forecast to increase slightly from the 2001 volume.

Softwood Log Trade

Softwood log exports to the Pacific Rim fell 25% in the first 4 months of 2002 compared with exports in the same period of 2001, while softwood log exports to the European Union fell by 78.8%. Total softwood log exports from the United States declined 25.1% the first 4 months in 2002 compared with 2001 exports; this level is well below export levels throughout the 1990s. During 2001, timber harvest from the National Forests continued to decline but at lower rate than that in earlier 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 harvest decline in the West.

Hardwood Log Trade

Hardwood log exports and imports decreased slightly during the first 4 months of 2002. Exports declined 3.2% while imports declined 1.7%, compared with this period of a year ago. For all 2001, exports to Canada rose 6%. During the first 4 months of 2002, exports to the Pacific Rim rose 35.4% and exports to the European Union fell 25.2%. During 2001, hardwood log imports from Canada were relatively unchanged from the previous year. For the first 4 months of 2002, imports from Canada fell 11.2% compared with the same 4 months in 2001. Canada traditionally provides about 95% of imports.

Pulpwood

Combined roundwood and forest chip production for pulp and wood-based panel mills was 193 million cubic meters in 2001, down 5.4% from 2000. This includes mill residue used for pulp. The rate of decrease for roundwood pulpwood is expected to continue to decline during 2002. Pulpwood supplied from residues is decreasing relative to roundwood. The roundwood portion of pulpwood was 141 million cubic

meters in 2001, a 4.1% decrease from 147 million cubic meters in 2000 (based on pulpwood receipts data from the Forest Resources Association). 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 decreased by 8.0% in 2001. Imports of paper and paperboard declined also during 2001 by 3.9%. Responding to the strong dollar and the weakened U.S. economy, paper and paperboard production declined 5.8% in 2001 following a 2.5% decline in 2000. These consecutive year declines constituted the sharpest reductions in paper and paperboard production since the mid-1970s. Most U.S. paper companies managed to remain profitable in 2001, but industry earnings fell to about half their 2000 levels.

Softwood Plywood

Softwood plywood production was 13.4 million cubic meters in 2001 according to APA—The Engineered Wood Association. This was a decline of 13.5% from 2000. The volume of softwood plywood production fell throughout the 1990s. Softwood plywood production for the first two quarters of 2002 increased by 2% compared with the first two quarters of 2001. The APA—The Engineered Wood Association prediction that plywood production will decline in 2002 is not supported by the rise in production during the first half of 2002.

Softwood plywood imports and exports varied inversely in 2001 compared with 2000 data: imports rose sharply by 57.7% and exports declined 27.5%. Softwood plywood imports increased 69.9% and exports decreased 24.8% during the first four months of 2002. Plywood exports to Canada fell by 23% during the first two quarters of 2002, and plywood imports from Canada increased by 28.6%. Given these estimates, apparent consumption of plywood is estimated to increase in 2002, even as more market share for structural panels continues to be taken by oriented strandboard (OSB).

Oriented Strandboard

According to the APA—The Engineered Wood Association, OSB production for the first two quarters of 2002 exceeded production in this period in 2001 by 12.2%. In 2001, 11.1 million cubic meters of OSB was produced, compared with 10.5 million cubic meters in 2000. The growth rate from 2000 to 2001 was 5%, which is higher than the 2.5% growth rate experienced between 1999 and 2000. Between 1996 and 2000, OSB capacity grew rapidly in the United States and Canada—by 25% in 1996, 5% in 1997, 5% in 1998, and 3% in 1999; it remained level in 2000 and 2001. Despite the growth in capacity and high demand, prices have continued to moderate. The pricing trends for OSB continued through 2001 as prices ended the year lower than a year earlier. After increasing through the first quarter 2002, OSB prices are sliding toward a new low for the year. In 2001,

OSB exports declined by 14% (24,000 cubic meters); imports increased by 444,000 cubic meters, a rise of 6.6% from 2000.

Structural panel consumption increased 4.6% in the second quarter of 2002 to 9.3 million cubic meters, a record quarter. OSB consumption was a record 5.2 million cubic meters and was 56% of the structural panel total. Only about 25% of these years higher levels of housing starts can explain the increase. Because OSB now accounts for 53% of structural panel consumption (1% rise from 1999), OSB consumption is expected to continue to exceed plywood consumption.

Hardwood Plywood

Hardwood plywood production was 2.1 million cubic meters in 2001, an increase of 36,000 cubic meters over 2000 production. This includes core material such as softwood plywood and OSB. An increase of about 2% in hardwood plywood is estimated for 2002, with total production increasing to about 2.3 million cubic meters. Hardwood plywood imports increased 12.1% the first 4 months of 2002 compared with 2000. If this trend continues, hardwood plywood imports will likely total 2.9 million cubic meters in 2002. The amount of hardwood plywood exported in 2001 was 143,000 cubic meters.

Particleboard and Medium Density Fiberboard

Information from the Composite Panel Association indicates that particleboard and medium density fiberboard (MDF) production declined during 2001. Particleboard production was 7.6 million cubic meters, a decrease of 9.7%, and MDF production was 2.5 million cubic meters, a decrease of 3.3%. During the first 4 months of 2002, particleboard imports decreased by 1.2% on a value basis and MDF imports decreased by 53.1% on a volume basis. Exports of particleboard for the first 4 months of 2002 decreased by 3% and MDF exports increased by 16.8%.

Hardboard

Based on data from the American Hardboard Association, 980,000 cubic meters of hardboard was produced in 2001, a 12.1% drop from the 2000 level. Hardboard imports increased by 30.4% in 2001, and this trend continued during the first 4 months of 2002 as imports increased by 16.4%. Hardboard exports decreased in 2001 by 16.4% and also declined the first 4 months of 2002, falling 3.2%.

Insulating Board

Available information from the AF&PA showed that 2.6 million cubic meters of insulation board was produced in 2001, unchanged from 2000. Production of insulation board has been flat for several years. This has resulted in a stable level of apparent consumption of about 3.3 million cubic meters.

Fuelwood

Using data from the most recent Department of Energy survey, adjusting for the 2001 winter weather and a declining trend in fuelwood use per household, fuelwood consumption was estimated to be 73 million cubic meters in 2001, an increase of 0.4% over 2000. Households use most fuelwood for heating and esthetic 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 2002 is estimated to be below the level for 2001.

Forest Products Prices

Recent trends in the wholesale price of forest products are similar across two broad categories: lumber and wood products (such as lumber, wood-based panels) and pulp and paper products (Fig. 1). Throughout the late 1990s, the composite price of lumber and wood products continued to fluctuate around a level reached by the mid-1990s before peaking during the last half of 1999. The composite price for lumber has continued to fluctuate during the first half of 2002.

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 the base year, 1982), followed immediately by a sustained decline that continued throughout 2000 and into 2001. The composite index 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 2001 remained near record levels. In contrast, the composite measure of prices in the pulp and paper sector has exhibited considerably less

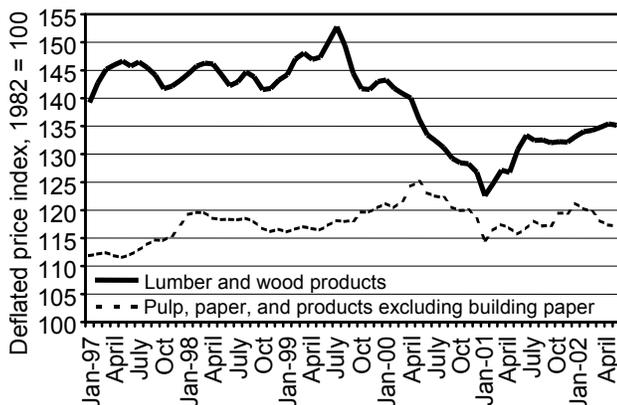


Figure 1— Recent trends in real producer prices of forest products (deflated with all-commodity PPI).

short-term volatility. The period of declining prices from the previous peak (1994–1995) ended in 1997, and by early 1998 the composite index reached the level of the mid-1990s. In deflated terms, the composite index has had little volatility and a flat trend that has decreased in recent months of 2002.

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