



AgEcon SEARCH

RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

1,90
C2008
C3

Proceedings



OUTLOOK '90

66th Agricultural Outlook Conference
U.S. Department of Agriculture
Washington, D.C.
November 28 - November 30, 1989

ANNUAL AGRICULTURAL OUTLOOK CONFERENCE

United States Department of Agriculture

Washington, D.C. 20250-3900



Outlook '90, Session #8

For Release: Wednesday, November 29, 1989

OUTLOOK FOR TIMBER PRODUCTS

Robert B. Phelps

Economics, Trade, and Market Research Branch
Forest Inventory, Economics, and Recreation Research
Forest Service, USDA

Few timber products are consumed by individuals in the form in which they are initially manufactured. Instead, most move to various major markets where they are remanufactured or made a part of a product that is ultimately used by individual consumers. Thus, although consumer demand is the underlying force, direct demand for timber products is largely determined by the levels of activity in their primary end-use markets.

In my talk today, I will review trends in the economy and in the major timber products markets through the third quarter of 1989 and present consensus estimates of their prospective growth in the last quarter of this year and in 1990. I will then comment on what these trends suggest as to the consumption and production of the various major timber products.

General Economic Trends

The gross national product, a measure of the Nation's total output of goods and services, and the most comprehensive indicator of total economic activity rose at an annual rate of 2.5 percent to \$4,158.1 billion (1982 dollars) in the third quarter of 1989. Although the rate of growth changed little between the second and third quarters, the economy has been generally slowing since late in 1987. With the 2.5 percent annual rates shown in the second and third quarters, growth through the first three quarters of 1989 averaged 2.9 percent, a fifth smaller than the rate in the first 9 months of 1988.

Late in the third quarter and early in the fourth, many indicators seemed to be pointing to lower rates of economic growth in the months ahead, particularly in the industrial sector. For example, manufacturing shipments, new orders for durable goods, and backlogs of unfilled orders declined in September, while business inventories were rising. Reflecting these trends, manufacturing production and industrial utilization rates declined in both September and October. Retail sales and consumer credit were slightly higher in September but dropped somewhat in October, and though personal income increased by a small amount in September, personal consumption expenditures, a major component of GNP, showed the smallest monthly gain in a year.

With these various factors in mind, analysts currently forecast that the economy will continue to grow in the fourth quarter, but likely at a somewhat slower rate than in the third. As a consequence, average 1989 GNP should amount to about \$4,140 billion (1982 dollars), 2.9 percent above the average for 1988. Most economists also expect overall growth to continue at a slower pace in 1990, especially early in the year and forecasts range from less than 2 percent to more than 3 percent. A year-to-year growth rate of about 2.0 percent would mean a further rise to an average of \$4,220 billion in 1990, and would represent the eighth year of positive growth since 1982.

Major Timber Product Market Trends

Construction of new housing units, which generally accounts for more than a third of United States annual consumption of softwood lumber and plywood and for substantial volumes of other softwood and hardwood products, has been trending downwards through much of 1989. Although there was a temporary increase at mid-year, housing starts continued to slide in August and in September dropped to the lowest level in nearly 7 years, apparently as a result of interest rate increases, declining housing unit sales, and bad weather in some parts of the country. By October, mortgage interest rates had again begun to move down somewhat, weather related building conditions had improved, and starts rebounded 12 percent to an annual rate of 1.42 million units, the highest level in almost 3 years. Despite this improvement, the number of units started through the first 10 months of the year was about 6 percent below starts in January-October 1988. The number of single-family starts was down 6.1 percent and multifamily units were 5.9 percent below year-earlier construction.

Although mortgage interest rates have fluctuated somewhat during 1989, economists generally expect moderating rates in the last months of the year and in early 1990 if the economy grows as slowly as expected. These prospective rates, in combination with the slightly increased number of housing permits issued in October, suggest a stabilization of housing activity late in the year and in the first months of 1990. Recent estimates of housing starts for 1989 fall between 1.38 and 1.44 million units, with the current consensus at about 1.41 million units--down 5 percent from the volume started in 1988. Analysts' forecasts for 1990 naturally have a somewhat wider range; however, most estimates available early in the last quarter show a probable increase to about the 1.46 million level.

Single-family units are expected to account for about 73 percent of total starts in 1989, about the same percentage as in 1988. A small increase in the relative proportion of single-family units is likely in 1990. Shipments of mobile homes, down about 6.6 percent from year-earlier levels through September, are likely to total about 200,000 units in 1989 with a small increase probable in 1990.

Repair and remodeling of residential structures, another major wood products market, apparently has slowed somewhat in 1989 after 6 years of relatively rapid growth. Through September, Bureau of the Census construction surveys show that expenditures for improvements (additions, alterations, and major

replacements) averaged about \$51.0 billion (seasonally adjusted annual rate, 1982 dollars), 1.3 percent below expenditures during the same period in 1988. In contrast, annual expenditures rose almost 8.5 percent between 1987 and 1988. Observers surmise that both upkeep and improvement expenditures could have been adversely impacted by interest rates increases during the summer and by a small drop in per capita income in the second quarter. Most agree that this segment of the construction market, though down slightly in 1989, will recover in 1990 and continue to grow in the years ahead.

Total nonresidential construction activity through the first 9 months of 1989 has been slightly weaker than during the same period in 1988. Expenditures through September averaged \$175.9 billion (seasonally adjusted annual rates, 1982 dollars), down 0.7 percent from January-September 1988. A number of things are apparently responsible for the lack of growth in 1989, including, for example, the slowing overall economy, delayed effects of declining housing construction over the past 3 years, interest rate increases early in the year, and continued high vacancy rates for office buildings, hotels, and motels in many major urban areas. Many of these factors will likely continue to negatively affect nonresidential construction in late 1989 and early 1990. As a consequence most economists expect a slight decline in nonresidential construction expenditures for all of 1989, followed by a small improvement in 1990.

The index of manufacturing production--an important indicator of the demand for pallet lumber, container board, and some grades of paper--dropped about 0.8 percent to a seasonally adjusted value of 147.6 (1977=100) in October. Although this represented the third small monthly decline in a row, much of the decline was apparently due to the California earthquake and other temporary factors, and most analysts interpreted the overall situation as a continuation of the relatively flat trend in evidence through most of the year. The October index indicated an overall increase of less than 0.3 percent since January. The indexes of production for the furniture and fixtures and paper and products industries have also shown little sustained growth in 1989.

Despite the lack of sustained growth during the year, average monthly manufacturing production through October was about 4 percent above the average for the first 10 months of 1988. Furniture and fixtures manufacture was also up about 4 percent year-over-year, while the paper and products index indicated an increase of about 1 percent. Most economists currently feel that total manufacturing output and production in many industries will continue at a relatively slow but positive pace in the months ahead, in step with prospective economic growth.

In summary, U. S. economic activity in general and many of the principal U.S. timber products markets have shown declines or somewhat lower rates of growth over the first three quarters of 1989 than in 1988. In addition, prospective trends in several of the important indicators point to continued relatively slow growth in late 1989 and early 1990. At the current time, however, most economists do not foresee a recession in 1990. The prospective improvement in housing markets in 1990 should be a positive influence on the consumption of several products.

International Markets

The United States is the world's leading importer of timber products--chiefly softwood lumber, woodpulp, and paper and board from Canada, and veneer and plywood from southeast Asia. The total value of these imports in 1988 was \$16.7 billion, about 3.8 percent of the value of all U.S. imports. In terms of roundwood equivalents (i.e., the estimated amount of wood required to produce the individual products), more than a fifth of our apparent consumption of timber products in recent years has been imported.

The United States is also a major timber products exporter, the value of which is second only to Canadian shipments in world markets. In 1988, the value of our timber products exports was \$12.8 billion--about 4.2 percent of our export total. Although we ship a wide variety of timber products to many different countries, our principal export markets are Japan for softwood logs and lumber, pulp chips, woodpulp, and paper and board products, and western Europe for lumber, plywood, woodpulp, and paper and board. In recent years, China has also become an important market for softwood logs.

According to data presented at the October meeting of the Timber Committee of the Economic Commission for Europe, economic growth in many of our major European markets has remained relatively strong in 1989, though at slightly lower levels than in 1988. Despite these trends, investment in equipment and in construction in several countries remained at high levels, although interest rate increases in the fall were expected to have some dampening effect late in the year. Exports of logs and lumber to Japan in 1989 are both sharply ahead of shipments in 1988, while there has been a large decline in logs to China.

Looking forward to 1990, the likelihood is for some slowing in the exports of most products. Our major western European trading partners expect a leveling off or some easing back in their purchases as a result of probable rising interest rates and slightly slower overall growth. Industry analysts expect that shipments to our major Pacific Rim markets also will be smaller than they were this year. Imports, particularly of those products used in housing construction, should show some increase.

Timber Products Production, Trade, and Consumption

Softwood lumber

According to data from the National Forest Products Association, softwood lumber consumption in the first 8 months of 1989 was about 1.5 percent below that in the same period in 1988. Current expectations about housing and other markets indicate the likelihood of some additional slowing in the final months of the year. Thus consumption for all of 1989 (based on data from the U.S. Bureau of the Census) is estimated at 46.5 billion board feet, 2.9 percent below consumption in 1988 and down 6.5 percent from the record 49.7 billion board feet consumed in 1987 (table 1).

Table 1.--U.S. wood products production, consumption, and trade
(1986-88 actual, 1989-90 projections)

| Product | Year | Domestic production | Imports | Exports | Apparent consumption |
|--|------|------------------------|---------|---------|-------------------------|
| Softwood lumber (billion bd. ft.) | 1986 | 34.8 | 14.3 | 1.9 | 47.2 |
| | 1987 | 37.4 | 14.7 | 2.4 | 49.7 |
| | 1988 | 37.3 | 13.8 | 3.3 | 47.9 |
| | 1989 | 35.9 | 14.0 | 3.4 | 46.5 |
| | 1990 | 36.9 | 14.3 | 3.4 | 47.8 |
| Hardwood lumber (billion bd. ft.) | 1986 | 7.2 | .3 | .5 | 7.0 |
| | 1987 | 7.5 | .5 | .8 | 7.2 |
| | 1988 | 7.7 | .4 | 1.3 | 6.8 |
| | 1989 | 7.0 | .3 | 1.0 | 6.3 |
| | 1990 | 7.2 | .4 | 1.0 | 6.6 |
| Softwood plywood (billion sq. ft., 3/8-inch basis) | 1986 | 20.4 | .1 | .6 | 19.9 |
| | 1987 | 22.3 | .1 | .8 | 21.7 |
| | 1988 | 22.1 | .1 | 1.0 | 21.2 |
| | 1989 | 21.7 | .1 | 1.4 | 20.4 |
| | 1990 | 22.4 | .1 | 1.4 | 21.1 |
| Hardwood plywood (billion sq.ft., 3/8-inch basis) | 1986 | .9 | 1.9 | .1 | 2.7 |
| | 1987 | .9 | 1.9 | .1 | 2.8 |
| | 1988 | .9 | 1.6 | .1 | 2.4 |
| | 1989 | .9 | 1.8 | .1 | 2.6 |
| | 1990 | .9 | 1.9 | .1 | 2.7 |
| Particleboard ¹ (billion sq. ft., 3/4-inch basis) | 1986 | 4.5 | .2 | .1 | 4.6 |
| | 1987 | 4.7 | .2 | .2 | 4.7 |
| | 1988 | 4.9 | .3 | .3 | 4.9 |
| | 1989 | 5.0 | .4 | .4 | 5.0 |
| | 1990 | 5.1 | .4 | .4 | 5.1 |
| Hardboard ² (million tons) | 1986 | 1.8 | .3 | .1 | 2.1 |
| | 1987 | 1.7 | .3 | .1 | 1.9 |
| | 1988 | 1.6 | .2 | .1 | 1.7 |
| | 1989 | 1.6 | .2 | .2 | 1.7 |
| | 1990 | 1.7 | .3 | .2 | 1.8 |
| Insulation board (million tons) | 1986 | .9 | .1 | (3) | 1.0 |
| | 1987 | .9 | .1 | .1 | .9 |
| | 1988 | .9 | .1 | .1 | .9 |
| | 1989 | .9 | .1 | .1 | .9 |
| | 1990 | .9 | .1 | .1 | .9 |
| Pulpwood (million cords) | 1986 | 93.4 | .6 | 1.9 | 91.8 |
| | 1987 | 95.9 | .4 | 2.0 | 94.3 |
| | 1988 | 97.5 | .7 | 2.8 | 95.4 |
| | 1989 | 101.7 | .7 | 3.7 | 98.7 |
| | 1990 | 103.3 | .7 | 3.9 | 100.1 |

- ¹ Includes medium density fiberboard. Imports adjusted to remove estimated waferboard shipments.
² Shipments.
³ Less than 50,000 tons.

Note: The projections shown for 1989 and 1990 are based on the trends in the major markets discussed in this paper and should not be viewed as forecasts of actual volumes. Data shown are subject to rounding.

Sources: U.S. Department of Agriculture, Forest Service estimates based on data from the U.S. Department of Commerce, American Hardboard Association, American Paper Institute, American Pulpwood Association, National Forest Products Association, National Particleboard Association, and Western Wood Products Association.

Imports, nearly all from Canada, have increased somewhat over the first 9 months of 1989. Through September, total softwood lumber imports were about 3 percent above the similar year-earlier period. Imports during the last quarter of 1989 are likely to drop to slightly lower levels given the prospective U.S. demand situation. As a result, total imports for 1989 are expected to reach 14.0 billion board feet, up about 1 percent from the volume imported in 1988.

Exports through the first 9 months of 1989 were up 5 percent from January-September 1988. Many observers feel that this trend will moderate slightly late in the year. As a consequence, exports for the year are likely to total about 3.4 billion board feet. This would be about 4 percent more than in 1988 and a record level.

Through August, U.S. production of softwood lumber was nearly 2 percent below the first 8 months in 1988 according to information from the Western Wood Products Association. With somewhat slower markets expected in the last months of the year, production for all of 1989 should amount to about 35.9 billion board feet, 3.8 percent below production in 1988. Present expectations about housing and the other important markets discussed earlier indicate probable increases in production, imports, and consumption are likely in 1990.

After rising through the first half of the year, the price of domestically produced softwood lumber has declined somewhat in recent months. The October producer price index was 129.3 (1982=100), down almost 3.7 percent from the index for July, but up about 9.3 percent from October 1988 (table 2). With the prospective slowdown in consumption in late 1989 discussed earlier, prices likely will not rise markedly until usage picks up in 1990.

Hardwood lumber

Data published by the National Forest Products Association show hardwood lumber consumption through the first 8 months of 1989 down sharply from the similar period in 1988. If manufacturing markets continue at the current slow pace in the last months of the year, consumption, based on Bureau of the Census data, is likely to drop to 6.3 billion board feet, about 7.2 percent below the 1988 total.

Hardwood lumber imports through September were almost 16 percent below those in the first 9 months of 1988 with some additional slowing expected in the last quarter. The total for the year is thus estimated at 0.3 billion board feet. Total exports for the year are expected to be 1.0 billion board feet, down from 1.3 billion in 1988.

Hardwood lumber production in 1989, based on data from the Bureau of the Census and the above estimates of consumption and trade, is projected at 7.0 billion board feet, down 8.6 percent from output in 1988. Anticipated growth in the important hardwood markets suggests that small increases in production and consumption are likely in 1990. Imports and exports also are expected to show small gains.

Table 2.--U.S. producer price indexes for selected timber products
(1982=100)

| Product | Annual | | | October | |
|-------------------------------|--------|-------|-------|---------|-------------------|
| | 1986 | 1987 | 1988 | 1988 | 1989 ¹ |
| Softwood lumber | 108.4 | 116.6 | 120.0 | 118.3 | 129.3 |
| Hardwood lumber | 118.2 | 126.8 | 131.0 | 128.1 | 128.2 |
| Softwood plywood | 109.4 | 109.8 | 109.1 | 109.1 | 138.5 |
| Hardwood plywood ² | 91.0 | 92.9 | 94.2 | 94.6 | 101.0 |
| Particleboard ³ | 112.5 | 121.1 | 125.4 | 121.4 | 132.8 |
| Hardboard | 103.7 | 101.9 | 103.5 | 105.6 | 99.5 |

¹ Preliminary.

² Hardwood plywood and related products.

³ Platen-type (mat-formed), December 1982=100.

Source: U.S. Department of Labor, Bureau of Labor Statistics.

Hardwood lumber prices have shown little variation over the past year. The October producer price index--128.2 (1982=100)--was less than one percent below the high recorded in May and less than one percent above the average in October 1988. Because of their different market structure, prices for hardwood lumber are generally less volatile than those for softwood lumber.

Softwood Plywood

As noted earlier, new housing construction, traditionally the most important softwood plywood market, has remained below year-earlier levels through the first 10 months of 1989, and other major markets have shown only relatively slow growth. As a result, softwood plywood consumption has been somewhat weaker than in 1988. Total consumption in 1989 is expected to drop to about 20.4 billion square feet (3/8-inch basis), about 3.8 percent less than was used in 1988.

Data for the first 9 months of 1989 show softwood plywood exports nearly 40 percent above shipments during the similar period in 1988, with significantly larger shipments to nearly all of our major offshore markets. This upward trend is likely to slow somewhat late in the year and the total for 1989 is expected to be about 1.4 billion square feet. Imports are expected to amount to about 0.1 billion square feet.

With these levels of consumption and trade, softwood plywood production for 1989 is projected to decline to 21.7 billion square feet (3/8-inch basis), about 1.8 percent below output in 1988.

For 1990, with the prospective increase in new housing construction, and the relatively slow growth in other markets, total consumption is expected to increase about 3.4 percent to 21.1 billion square feet. Imports and exports also are likely to be near the volumes in 1989; and as a consequence, production should also rise.

Softwood plywood prices, as indicated by the producer price index, have been increasing in 1989, with a particularly large jump in October. The October index--138.5 (1982=100)-- indicated prices nearly 9.5 percent above those in September. Industry observers surmise that the large rise in October and smaller increase in September were largely in response to Hurricane Hugo and the California earthquake superimposed on small stocks in the distribution system. If demand increases in 1990 as outlined above, some additional rise in prices is likely.

Hardwood Plywood

Consumption of hardwood plywood in 1989 is expected to be near 2.6 billion square feet (3/8-inch basis), about 8 percent above total use in 1988. Trade data through September indicate that imports are likely to increase 12.4 percent to 1.8 billion square feet. Exports are expected to remain relatively small at about 0.1 billion. With these trends in consumption and trade, production for 1989 will total 0.9 billion square feet, about the same volume as in 1988.

Much of the hardwood plywood consumed each year is used in residential construction as well as in the manufacturing sector. As a consequence, an increase in consumption and imports is likely in 1990. Exports are expected to remain close to 0.1 billion square feet.

Hardwood plywood prices, as indicated by the producer price index, have been very slowly increasing over the past few years. Although the index for October--101.0 (1982=100)-- indicates prices about 7 percent above those in January, they are, of course, only 1 percent above the average for 1982.

Particleboard and Medium Density Fiberboard

Activity in the major manufacturing markets and shipments data from the National Particleboard Association suggest that combined consumption of particleboard and medium density fiberboard in 1989 will be close to 5.0 billion square feet, 3/4-inch basis, about 2 percent above that used in 1988. Roughly a fifth of total combined consumption is expected to be medium density fiberboard.

Data from the Bureau of the Census for the first 9 months of 1989 imply that both imports and exports will rise to about 0.4 billion square feet. With these estimates, production would amount to 5.0 billion square feet, also up 2 percent from production in 1988.

Trends in the major markets, discussed earlier, suggest that a increases in production and consumption are likely in 1990.

Hardboard and Insulation Board

Based on industry shipments through the first 7 months of the year, hardboard consumption in 1989 is estimated at about 1.7 million short tons, about 2 percent below estimated consumption in 1988. Imports are expected to total 0.2 million short tons, with exports also at about 0.2 million short tons. Production, with these estimates of consumption and trade, would amount to 1.6 million short tons, about 1 percent below production in 1988.

Markets during the first 3 quarters of 1988 indicate that insulation board consumption for the year will be near 0.9 million short tons--about 7 percent under the volume used in 1988. Imports and exports are expected to be close to 0.1 million short tons. Consequently, production is estimated at 0.9 million short tons, down about 3 percent from output in 1988.

With the prospective trends in housing and the major manufacturing markets, consumption and production of hardboard and insulation board are likely to show small increases in 1990. Imports and exports for both products will probably remain about the same as in 1989.

Pulpwood

Over the first 3 quarters of 1989, paper and paperboard production and consumption, though following a relatively flat trend, has continued at record and near-record levels, according to data from the American Paper Institute. Through September, the annual rate of total output was down only 0.2 percent from the first 10 months of 1988. As a result of these trends, pulpwood consumption was again continuing at record levels according to data from the American Pulpwood Association. Data from industry sources suggest that production may have moved back to the 1988 trend line in October and that production for the year could at least match the record set in 1988. On the basis of these trends, pulpwood consumption (roundwood and chips) in 1989 is expected to total 98.7 million cords up about 3.5 percent from the previous high recorded in 1988.

Imports of pulpwood, mostly pulpwood chips from Canada, have remained near year-earlier levels through the first 9 months of 1988, according to Bureau of the Census data. As a result, imports for the year are expected to total 0.7 million cords. Exports are estimated at 3.7 million cords, about 35 percent above exports in 1988. Most of the increase in exports will be in the form of pulpwood chips shipments to Japan.

Pulpwood production in 1989 is expected to rise to about 101.7 million cords, 4.3 percent more than in 1988, and also a new record. The prospective increase in overall economic activity suggests that the upward trend will continue in 1990, though at a somewhat slower pace than in the past few years.

Softwood Log Trade

Softwood log exports during the first 9 months of 1989 totaled 3.6 billion board feet, about the same volume shipped during January-September 1988. Exports were up to many of our major offshore markets, however, shipments to China were only a little more than a third above the year-earlier volume. As the result of some probable slowing late in the year, exports for all of 1989 have been estimated at 4.4 billion board feet, 4 percent below shipments in 1988. Industry sources indicate that the outlook for 1990 is for a continued decline to about 4.2 billion board feet.

Softwood log imports were down sharply through September and are likely to total about 25 million board feet, roughly half of the volume imported in 1988.

Hardwood Log Trade

Hardwood log exports for 1989 are estimated at 0.2 billion board feet. Although the volume is relatively small, most of the logs exported in 1989 and in recent years have been high quality oak, walnut, and other preferred species that are in short supply in the United States. Thus, these exports have been an contributing factor to the increases in stumpage and log prices for some species.

Hardwood log imports in 1989 are expected to be close to 20 million board feet, about double the volume imported in 1988.

Industrial Roundwood Summary

Given the trends in consumption, trade and production in 1989, total consumption of all industrial roundwood products (i.e., all roundwood products except fuelwood) is expected to be about 15.6 billion cubic feet, 3.1 percent below use in 1988 and 6 percent less than the record volume consumed in 1987. Production and imports will also be below year-earlier levels. Exports, however, will show a moderately large rise. Consumption, imports, and production will all increase in 1990 if the major markets follow the trends discussed earlier.

Fuelwood

Studies have shown that in the short run, fuelwood consumption largely is determined by such factors as the prices of alternate fuels and weather conditions during the heating season. Current estimates indicate the rapid growth in the consumption of fuelwood seen in the late 1970's and 1980's has slowed as the prices of fossil fuels have peaked and then declined in recent

years. Based on available data, fuelwood consumption in 1989 is estimated at about 40.5 million cords, just slightly less than estimated consumption in 1988. An additional small decline is possible in 1990, depending on the weather, and if the prices of alternate fuels do not increase appreciably.

Much of the wood used for domestic heating and cooking in the United States is cut by the consumers themselves from trees in urban areas, fence rows, dead forest trees, and other sources not normally drawn upon for industrial timber products. Most of that used by forest industries comes from utilization of logging residues and mill byproducts.