

Research Department
Federal Reserve
Bank of
San Francisco

April 6, 1984

Lumber's Knotty Recovery

In 1983, the U.S. softwood lumber industry experienced a sharp increase in the demand and prices for its products. This welcome turn followed a severe slump over the 1978-82 period that reduced production to the lowest level in the post-World War II period. Spurred by an upsurge in demand by the nation's homebuilders and lesser increases by lumber's other major users, the industry recorded sharp gains in all key indicators of activity. Nevertheless, the industry still found its overall performance in 1983 somewhat disappointing. Neither production nor profits came close to regaining the peak levels achieved in the late 1970s. In large part, this was due to the failure of overall U.S. softwood lumber consumption to regain its 1978-peak. But it was also due to the increased share of the domestic market supplied by Canadian imports and to the industry's need to process some high-cost timber from publicly-owned forests that it had bid upon several years earlier when lumber markets were booming.

The year 1984 promises further recovery in consumption. All markets are poised for modest improvement — even housing has been showing surprising resiliency in the face of relatively high mortgage rates. But the softwood lumber industry is likely to face many of the same competitive and raw material problems that afflicted its operations in 1983, leaving sales and profits once again below previous peaks.

Improved demand

Last year, U.S. softwood lumber consumption rose about 25 percent above the 1982 trough (Chart 1). Nearly all of the industry's major markets contributed to this increase. But the homebuilding industry, which constitutes the single most important outlet for lumber, registered by far the largest increase in lumber usage. Buoyed by a decline in mortgage interest rates, private housing starts soared upward from a low of

just over 1.0 million units in 1982 to 1.7 million units in 1983 — an increase of 70 percent. As a result, the nation's homebuilding industry boosted its consumption of lumber by 60 percent, raising its share of total consumption from 33 percent in 1982 to 42 percent in 1983. Meanwhile, the pickup in economic activity also raised the consumption of lumber in building repair and remodeling, materials handling (containers), and a composite category including military, furniture and consumer products. Surprisingly, exports — one of the smaller outlets — increased by about 7 percent, despite the rising foreign exchange value of the dollar. Lumber used in construction of new non-residential buildings and public works projects was the only category to decline.

To accommodate increased demand, the nation's lumber producers raised production by about 23 percent. Pacific Coast mills (Oregon, Washington, California) increased their production at an even faster rate of 29 percent. In part, this faster rate reflected an accumulation of inventory, but western homebuilding activity also picked up more sharply than homebuilding elsewhere and enabled Pacific Coast mills to increase their share of total U.S. production relative to Southern mills. In the Pacific Northwest, the industry's operating rate reached an average of 83 percent of capacity in 1983, compared with only 64 percent in 1982.

While production accelerated, both national and Pacific Coast lumber employment rose much less sharply. Pacific Coast firms increased the average number of workers on their payrolls by only 8 percent as they attempted to raise productivity and hold down unit labor costs. They were aided in the latter effort by the signing of a new three-year labor agreement in June which called for relative stability in wages.

Research Department

Federal Reserve Bank of San Francisco

Opinions expressed in this newsletter do not necessarily reflect the views of the management of the Federal Reserve Bank of San Francisco, or of the Board of Governors of the Federal Reserve System.

Meanwhile, producers were able to realize a sharply higher level of prices. Softwood lumber prices in general rose on average by 15 percent for the year, while prices for Douglas fir — the key homebuilding species — jumped upward by 37 percent. The upsurge in prices was attained during the first half of the year. During the second half, after housing starts peaked at an annual rate of nearly 1.9 million units in August, prices moved sharply lower.

The second-half price decline, combined with raw material cost pressures, resulted in disappointing profits. The nation's ten largest forest products firms, ranked according to sales in peak year 1979, experienced a near doubling of net income in 1983 from the extremely depressed level of 1982, but their combined net income still amounted to only 2.9 percent of sales (compared with 3.9 percent for all manufacturing). Smaller, non-integrated producers who were forced to rely heavily on timber from publicly-owned lands performed less well than large integrated producers who own forestlands.

Lingering problems

On an industry-wide basis, all significant indicators of performance in 1983 remained below peak levels reached in the late 1970s. For example, during the 1977-79 period, softwood lumber consumption averaged about 40 billion board feet, with the peak of 41 billion board feet reached in 1978. In 1983, despite a sharp increase, softwood lumber consumption was still about 14 percent less than in 1978. In part, this reflected the severity of the decline in the annual number of new homes built between 1978 and 1982. During that period, private housing starts plunged downward from an annual rate of just over 2.0 million units to about 1.0 million units. Thus, although starts rebounded to 1.7 million units in 1983, homebuilding activity still remained 15 percent below its prior 1978 peak.

The volume of lumber used in residential construction, however, dropped more than

the decline in housing starts would suggest because of the dramatic change in the types of homes built over the 1978-83 period. Single-family homes generally require nearly twice as much lumber as multi-family units, but the construction of single-family units weakened even earlier than multi-family units, dropping from 71 to 62 percent of total units started over that period. This shift away from single-family toward multi-family units reflected the efforts of builders to construct smaller, more affordable homes in a high interest rate environment. In 1983, builders reversed this pattern only slightly.

During the 1978-83 period, domestic lumber producers also faced greater competition by Canadian mills. Although Canadian lumber imports fell somewhat during the weak market period from 1978 to 1982, the share of total U.S. consumption supplied by imports rose from 28 to 32 percent (Chart 1). Moreover, in 1983, Canadian imports soared upward, rising to 34 percent of total U.S. consumption. Thus, while U.S. lumber consumption in 1983 remained about 14 percent below its 1978 peak, domestic production remained about 23 percent below its prior peak due to the loss of market share to Canadian mills.

Canadian mills have benefited from factors such as the steady decline in the value of the Canadian dollar relative to the U.S. dollar over the 1977-83 period, and lower transportation costs in shipping lumber both by rail and water to the eastern United States.

In addition to import penetration, U.S. lumber producers have suffered from the high cost of their basic raw material, timber. Producers dependent upon timber from National Forests and other publicly-owned lands located mainly in the West have been especially hard hit. The origins of the recent cost pressures lie in the residential construction boom of the late 1970s, when lumber prices were soaring and public timber was forecast to be in tight supply. In that environment, timber buyers bid

Chart 1

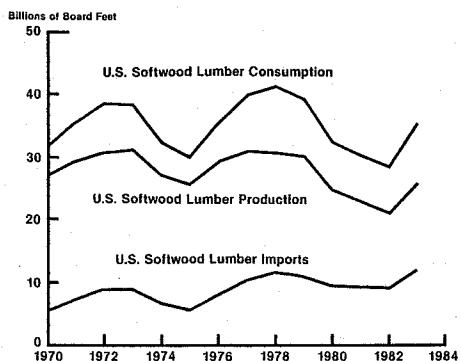
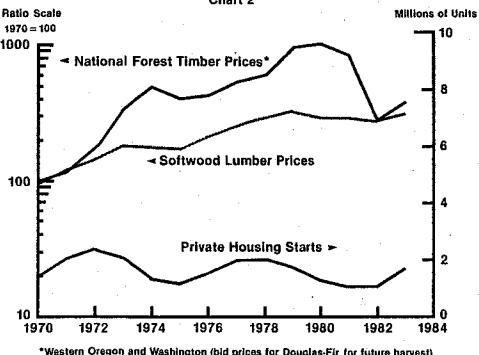


Chart 2



frantically for available supplies which the Forest Service offered under futures contracts. These contracts called for the winning bidder to remove the timber within the contract period, which averaged 3 years in length but was as long as 7 years in some sales. In the case of sales on National Forests in western Oregon and western Washington, the purchasers were to pay the original winning bid price when the timber was harvested several years later, a provision which is still in effect for sales conducted prior to August 1, 1983.

In formulating their bid prices for raw material, lumber companies thus were required to forecast the prices they expected to prevail for lumber and other wood products manufactured from that timber at the time of harvest. In the late 1970s, they expected the price of lumber and wood products to continue to rise at a rapid rate and, thus, they were willing to bid record prices for timber. For example, after rising at an average annual rate of 16 percent over the 1975-78 period, the bid price of Douglas fir sawtimber sold on National Forests in western Oregon and Washington rose at an accelerated annual rate of 36-percent over the 1978-80 period (Chart 2). When the price of softwood lumber dropped 15 percent between 1979 and 1982 instead of rising as lumbermen had expected, producers were caught with timber under contract which was unprofitable to manufacture at current lumber prices. Although the federal and state governments extended their contract termination dates, processors in 1983 still were forced to blend some of this high-cost timber with lower-cost timber purchased after 1981, when bid prices finally began to decline sharply in response to reduced finished lumber prices.

Outlook for 1984

This year, softwood lumber orders and prices have resumed their upward movement. In January, production was running 13 percent ahead of the year-earlier level, while prices were up by 6 percent. Part of the stimulus has come from a renewed pickup in housing starts which, by January, had rebounded to an annual rate of just over 1.9 million units — the highest level since late 1978. Analysts attribute this greater-than-expected strength to the rapid growth of personal income and to financial institutions' promotion of adjustable rate mortgage packages. Assuming the increased use of this type of financing prevents any significant increase in the overall level of mortgage rates through mid-year, most analysts expect housing starts in 1984 to total 1.75 to 1.8 million units. This could mean a gain in starts of as much as 6 percent from 1983 and could result in a modest increase in the volume of lumber consumed in residential construction.

Total U.S. softwood lumber consumption could rise moderately this year — perhaps as much as 8 percent. In addition to the prospect that the volume of lumber consumed in new homes will rise a few percentage points, the growth expected in personal income and business capital spending should increase the use of lumber in all types of repair and remodeling and in new non-residential structures. Exports also should rise as overseas economies improve. But production may rise less rapidly than consumption as Canadian producers further increase their penetration of the U.S. market. Moreover, further improvement in profits once again will be restrained by producers' need to work-off some existing high-cost public timber contracts.

Yvonne Levy

FIRST CLASS

Alaska • Arizona • California • Hawaii • Idaho • Nevada • Oregon • Utah • Washington

San Francisco

Bank of

Federal Reserve

Research Department

PERMIT NO. 752
U.S. POSTAGE PAID
FIRST CLASS MAIL
PRESORTED
SAN FRANCISCO, CALIF.

BANKING DATA—TWELFTH FEDERAL RESERVE DISTRICT

(Dollar amounts in millions)

Selected Assets and Liabilities	Amount Outstanding 3/21/84	Change from 3/14/84	Change from 12/28/83 Dollar	Percent Annualized
Large Commercial Banks				
Loans, Leases and Investments ^{1, 2}	177,040	824	1,014	2.5
Loans and Leases ^{1, 6}	156,864	931	1,509	4.2
Commercial and Industrial	46,687	176	724	6.8
Real estate	59,402	53	503	3.7
Loans to Individuals	26,998	8	347	5.7
Leases	4,995	— 10	67	5.8
U.S. Treasury and Agency Securities ²	12,268	77	238	8.3
Other Securities ²	7,907	— 185	256	13.6
Total Deposits	184,862	— 883	6,134	14.0
Demand Deposits	42,717	— 791	6,519	57.5
Demand Deposits Adjusted ³	29,048	— 245	2,283	31.7
Other Transaction Balances ⁴	12,189	— 88	585	19.9
Total Non-Transaction Balances ⁶	129,955	— 2	970	3.3
Money Market Deposit Accounts—Total	40,510	15	913	10.0
Time Deposits in Amounts of \$100,000 or more	37,971	— 33	192	2.2
Other Liabilities for Borrowed Money ⁵	18,128	— 642	4,877	92.1
Weekly Averages of Daily Figures	Week ended 3/21/84	Week ended 3/14/84	Comparable year-ago period	
Reserve Position, All Reporting Banks				
Excess Reserves (+)/Deficiency (-)	NA	NA	NA	
Borrowings	NA	NA	NA	
Net free reserves (+)/Net borrowed(-)	NA	NA	NA	

¹ Includes loss reserves, unearned income, excludes interbank loans

² Excludes trading account securities

³ Excludes U.S. government and depository institution deposits and cash items

⁴ ATS, NOW, Super NOW and savings accounts with telephone transfers

⁵ Includes borrowing via FRB, TT&L notes, Fed Funds, RPs and other sources

⁶ Includes items not shown separately

Editorial comments may be addressed to the editor (Gregory Tong) or to the author Free copies of Federal Reserve publications can be obtained from the Public Information Section, Federal Reserve Bank of San Francisco, P.O. Box 7702, San Francisco 94120. Phone (415) 974-2246.