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**1996 INDIANA FOREST PRODUCTS PRICE
REPORT AND TREND ANALYSIS**

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SUMMARY

A questionnaire requesting prices paid for timber products was sent to all known commercial sawmills and veneer mills in the state of Indiana. Fifty-one of the 230 mills surveyed responded with 43 providing usable data. Fifty-two mills provided usable data last year.

Compared to May 1995, prices paid for sawlogs decreased overall, especially for the premium species such as the oaks, black cherry and ash. Increases were reported for upper grade hard and soft maple logs, and for basswood and hickory. Veneer log prices were generally up. Five face veneer mills returned the survey. Four provided data.

The long-term overall price trend remains positive. The trend line for the real price of the average stand continues to reflect a real price increase of about 1.1 percent per annum. This is essentially unchanged from 1995. The trend for quality stands continues to show a 1.8 percent per annum increase. Thus, adequately stocked stands of hardwood timber in Indiana continue to represent a sound investment opportunity when properly managed. These stands provide very competitive real rates of return with income tax deferral on accumulated unrealized value increments. Timber owners should consult a professional forester to properly assess the options available to manage and market their timber assets.

INTRODUCTION

The Department of Forestry and Natural Resources, Purdue University in cooperation with the Indiana Agricultural Statistics Service has conducted a formal survey of Indiana sawmills and veneer mills since at least 1957. The primary data collected are prices paid for logs delivered to the mills. From 1957 to 1976 the results

were published as an Extension Circular. From 1977 to 1989 the results were published in the Indiana Forest Products Marketing and Wood Utilization Report. The results also appear in the *Woodland Steward* published by the Woodland Steward Institute, a cooperative effort of Indiana's leading forest resource related organizations. Historical data are available by contacting the primary author.

METHODOLOGY

The questionnaire was mailed by the Indiana Agricultural Statistics Service in early May of 1996 to the 230 mills listed in the data base as buying logs. The data base is maintained by Glenn Durham, Utilization Specialist, Indiana Department of Natural Resources, Division of Forestry in cooperation with Purdue's Department of Forestry and Natural Resources. A second mailing was made three weeks later to non-respondents. Two weeks later enumerators from Ag. Statistics called the larger mills who had not responded to request their assistance.

A total of 230 questionnaires were mailed. Fifty-two mills responded, 11 fewer than in 1995. The overall response rate was 23 percent (52/230). Nine provided no data. The small number of reports for some species and product classes, especially veneer logs, makes the data suspect, and year-to-year variations very large. The size distribution of mills included in the survey and responding is presented in Table 1. No attempt was made to sample non-respondents. Therefore, it must be assumed that the response is biased. The standard errors should be used for year-to-year comparisons only.

Responses were analyzed using a PC-based Excel spreadsheet. Data that appeared to be in error were purged. For example, if the responses for a category included most mills reporting prices of \$40, \$50, \$60, \$70, \$80, and only one

reporting \$240, the \$240 response was discarded.

The median price shown in Tables 2 and 4 is the reported price that divides the distribution into two equal halves. The median and mean would have the same value if the distribution was an exact bell-shaped normal curve. The standard error of the mean (s.e.) is a measure of the variability of the responses. It indicates the amount by which the mean would vary if a different set of mills had responded to the survey. Note that the standard error is relatively small for those species/grade categories for which ten or more mills responded but is high for categories for which only a few mills responded.

Table 1. Type of mills included in data base and providing data.

| | Total | Reporting Mills |
|---------------------|-------|-----------------|
| Sawmills (SIC 2421) | 2151 | 29 |
| Size Class (MBF) | | |
| 1 - 100 | 66 | 2 |
| 100 - 500 | 42 | 4 |
| 500 - 1,000 | 25 | 3 |
| 1,000 - 2,000 | 40 | 3 |
| 2,000 - 4,000 | 46 | 8 |
| 4,000 - 7,000 | 10 | 4 |
| > 7,000 | 8 | 5 |
| Prod. not reported | | 8 |
| Veneer (SIC 2435) | 15 | 6 |
| Total | 230 | 43 |

¹ Most custom mills didn't receive the questionnaire since they are listed in the data base as not buying logs.

SAWLOG PRICES

Sawlog prices overall were lower compared to May of 1996, Table 2. The survey took place while lumber prices for many species were declining. Further declines in some species have occurred since the survey. Table 3 shows lumber prices through the first of July 1996.

Figures 1 to 14 show lumber prices through August 1996.

Ash lumber prices started down in the winter of 1995 and are still searching for a supportable level, Figure 1. Note that all grades are continuing to decline. In addition to softened demand, ash decline is common in some regions. The need to harvest declining ash before the logs are ruined by fungus and stain has increased the volume of ash harvested. Reported log prices decreased by 10 percent, consistent with the decline in lumber prices.

Basswood lumber prices have been steady since late 1994, Figure 2. The No. 2A grade of lumber declined by \$5 in September of 1995, not enough to affect log prices. Prime basswood log prices increased by almost 8 percent. The increase was much less for lower grade logs with No. 3's declining by over 3 percent. Basswood is a species that fills a market niche for very specific end uses, such as venetian blinds. It does well when the economy is strong, especially the home decorations segment.

Beech lumber prices declined by about 2 percent from their highs in 1994, Figure 3. Log prices were down about 3 percent, although No. 2's were down 10 percent and No. 3's unchanged.

Cottonwood lumber prices, Figure 4, peaked in 1994, declined from June 1995 to February 1996, and have been steady since then. Current levels are well above historical trends, reflecting continued support for the species in many end-uses where clear white wood is needed and strength is not critical. This species is also exported. Cottonwood sawlog prices were down for the upper grades but up slightly for No. 3's.

Black cherry lumber prices, Figure 5, have declined significantly from their highs in mid 1995. FAS prices with the premium added are down 3.2 percent, but No. 1C

and No. 2A are down 19 and 25 percent respectively as of August 1996. Sawlog prices were down from 10 to 13 percent.

Elm lumber prices, Figure 6, peaked in the mid-1980's, declined substantially into the 1990's, and held steady over the last several years. The No. 2B grade followed a more cyclical pattern. Usually the upper grades are more cyclical. Elm sawlog prices were down from 2 to 8 percent with more mills reporting this species.

Hickory lumber prices, Figure 7, continue to support the increases made in 1993 and 1994. Prices have been steady at historical highs since the second half of 1994. Today's level is about 35 percent above the period of steady prices from 1987 to 1990. Sawlog prices were up by 17 percent for prime, but much less for the lower grades. A limited but steady market exists for hickory because of its "rustic" look.

Hard maple lumber prices, Figure 8, are mixed. FAS with the premium was falling off from the early 1993 peak, but recovered this summer. No. 1C and No. 2A prices leveled off after declining by 16 and 25 percent respectively from the 1993 peak. Prime and No. 1 sawlog prices were up by about 6 percent, but the lower grades declined by about 1 percent. Buyers are looking for sapwood (white wood), paying a \$240 premium for No. 1 and 2 white wood. The preference for white wood explains the divergent price trends between the FAS and lower grades of lumber, and between upper and lower grades of sawlogs.

Soft maple lumber prices, Figure 9, are well off their peak in 1994. Current levels are 13, 18, and 21 percent below the peak for FAS, No. 1, and No. 2A, respectively. Sawlog prices were up from 2 to 5 percent, except for an unexplainable decline in No. 2's. Because soft maple trees are easily wounded and stain spreads

well away from wounds, a larger volume of material must be processed to obtain the desired white wood than is true for many other species. The strong demand for hard maple may also be putting pressure soft maple.

White oak lumber prices, Figure 10, remained strong. No. 2A declined by \$10 in April and is down \$85 from the all time high in the summer of 1993. FAS with the premium is only \$10 below the all-time high of \$1,015 in the second quarter of 1989. Although veneer log prices increased significantly, reported sawlog prices declined from 6 to 14 percent. Strong demand for veneer logs could have increased the volume of white oak stands harvested resulting in a more than adequate supply of sawlogs.

Red oak lumber prices, Figure 11, have declined enough to indicate a fundamental shift in consumer preferences, especially in commercial construction. FAS with the premium is down 22 percent from the \$1,275 high in the first half of 1995. No. 1C is down 12 percent from the \$800 high in second and third quarters of 1993. No. 2A is down 18 percent from the \$485 high in the third quarter of 1993. Log prices were down from 7 to 18 percent, indicating that log supplies remain tight even relative to the decline in demand.

Black oak log prices were down somewhat less in the upper grades and down somewhat more in the lower grades.

Tulip (yellow) poplar lumber prices, Figure 12, have recovered slightly after hitting a cyclical bottom in the winter of 1995. They, however, remain well below the highs of the 1993-94 period. Sawlog prices were down 5 to 8 percent, except No. 3's which held steady.

Sycamore lumber prices, Figure 13, have held steady at the record high levels first reached in the second quarter of 1994. Log prices were unexplainably mixed

with Prime and No. 2's down by 4 and 9 percent, but No. 1 and 3's up by 11 and 13 percent.

Black walnut lumber prices, Figure 14, continued to fall significantly, except 2A which held steady. After holding at a high of \$1,615 from August 1993 to April 1995, FAS is down to \$1,440, an 11 percent decline. No. 1C is down 9 percent while No. 2A has held steady since 1987. Note that 2A price levels are the same as other species. The market pays no premium. Sawlog prices were down significantly, from a high of 24 percent for No. 2's to 12 percent for No. 3's. Prime and No. 1's were down an average 16 percent. Obviously the bloom is off this

rose. The only exception is very high grade veneer. The price differential between prime walnut logs and prime black cherry is \$91. The differential is \$127 compared to red oak.

Softwood prices were reported only for red cedar. Although pine lumber is produced in Indiana the volume is small and limited primarily to custom sawing for local use and pallets. Harvest restrictions in the West have reduced the volume of western cedar species available. This has increased harvests of the eastern species for cedar particleboard and lumber for novelty items.

Activity in this species has even led to some interest in plantation establishment and management in Indiana.

Table 2. Prices paid for delivered sawlogs by Indiana sawmills, May 1995 and May 1996.

| Species/Grade | Range (\$/MBF) | No. Respon. | | Mean (s.e.) ¹ | | Median | | Change (%) | |
|---------------|----------------|-------------|------|--------------------------|---------------|--------------|------|------------|--------|
| | | 1995 | 1996 | 1995 (\$/MBF) | 1996 | 1995 (\$MBF) | 1996 | Mean | Median |
| White Ash | | | | | | | | | |
| Prime | 300-800 | 24 | 21 | 642 (16.4) | 576 (23.8) | 650 | 600 | -10.3 | -7.7 |
| No. 1 | 250-680 | 24 | 21 | 459 (16.6) | 409 (25) | 500 | 400 | -10.9 | -20.0 |
| No. 2 | 100-400 | 22 | 19 | 285 (20.1) | 234 (19.1) | 265 | 210 | -17.9 | -20.8 |
| No. 3 | 100-230 | 16 | 17 | 179 (12.4) | 161 (10.6) | 180 | 160 | -10.1 | -11.1 |
| Basswood | | | | | | | | | |
| Prime | 200-450 | 15 | 14 | 283 (30.4) | 308 (23.4) | 250 | 313 | 8.8 | 25.2 |
| No. 1 | 140-360 | 18 | 16 | 238 (19.8) | 243 (15.1) | 200 | 250 | 2.1 | 25.0 |
| No. 2 | 100-400 | 17 | 16 | 184 (10.8) | 184 (18.7) | 200 | 190 | 0.0 | -5.0 |
| No. 3 | 100-200 | 13 | 14 | 149 (8) | 144 (10.5) | 150 | 155 | -3.4 | 3.3 |
| Beech | | | | | | | | | |
| Prime | 100-300 | 14 | 15 | 207 (11.3) | 201 (14.3) | 200 | 200 | -2.9 | 0.0 |
| No. 1 | 100-300 | 14 | 13 | 175 (9.4) | 171 (13.9) | 170 | 160 | -2.3 | -5.9 |
| No. 2 | 100-200 | 15 | 13 | 155 (10.5) | 139 (10.8) | 150 | 130 | -10.3 | -13.3 |
| No. 3 | 100-200 | 12 | 14 | 150 (9) | 150 (10.4) | 155 | 155 | 0.0 | 0.0 |
| Cottonwood | | | | | | | | | |
| Prime | 100-200 | 7 | 11 | 134 (6.9) | 133 (10.3) | 140 | 120 | -0.8 | -14.3 |
| No. 1 | 100-160 | 8 | 8 | 133 (6.2) | 119 (8.5) | 140 | 110 | -10.5 | -21.4 |
| No. 2 | 100-200 | 7 | 10 | 130 (6.5) | 125 (10.9) | 140 | 110 | -3.9 | -21.4 |
| No. 3 | 80-200 | 7 | 13 | 139 (9.4) | 141 (12.2) | 140 | 140 | 1.4 | 0.0 |

¹ Standard error of the mean is given in parentheses below the mean.

Table 2. Prices paid for delivered sawlogs by Indiana sawmills, May 1995 and May 1996, continued.

| Species/Grade | Range (\$/MBF) | No. Respon. | | Mean (s.e.) ¹ | | 1995 | Median 1996 (\$/MBF) | Change % | |
|---------------|-------------------|-------------|------|--------------------------|---------------|------|----------------------------|----------|--------|
| | | 1995 | 1996 | 1995 (\$/MBF) | 1996 | | | Mean | Median |
| Cherry | | | | | | | | | |
| Prime | 500-1050 | 23 | 21 | 817 (29.9) | 736 (30.9) | 800 | 700 | -9.9 | -12.5 |
| No. 1 | 400-800 | 24 | 21 | 591 (29.7) | 514 (29.9) | 600 | 450 | -13.0 | -25.0 |
| No. 2 | 150-540 | 22 | 19 | 360 (31.3) | 316 (27.5) | 325 | 280 | -12.2 | -13.9 |
| No. 3 | 100-250 | 17 | 18 | 194 (12.2) | 173 (12.1) | 200 | 175 | -10.8 | -12.5 |
| Elm | | | | | | | | | |
| Prime | 100-250 | 7 | 13 | 176 (18.2) | 162 (13.1) | 180 | 160 | -8.0 | -11.1 |
| No. 1 | 100-250 | 10 | 13 | 169 (13.9) | 166 (14.6) | 170 | 160 | -1.8 | -5.9 |
| No. 2 | 100-200 | 7 | 12 | 154 (10.7) | 142 (10.4) | 160 | 155 | -7.8 | -3.1 |
| No. 3 | 100-220 | 8 | 15 | 149 (9.9) | 146 (10.8) | 155 | 150 | -2.0 | -3.2 |
| S. Hickory | | | | | | | | | |
| Prime | 100-750 | 15 | 19 | 239 (17.3) | 280 (34.4) | 200 | 250 | 17.2 | 25.0 |
| No. 1 | 100-350 | 16 | 19 | 207 (15) | 213 (15) | 200 | 200 | 2.9 | 0.0 |
| No. 2 | 100-270 | 16 | 18 | 161 (10.2) | 161 (11.8) | 155 | 160 | 0.0 | 3.2 |
| No. 3 | 100-220 | 11 | 17 | 140 (8) | 147 (10.4) | 150 | 150 | 5.0 | 0.0 |
| Hard Maple | | | | | | | | | |
| Prime | 400-700 | 20 | 19 | 505 (27.4) | 542 (21.8) | 500 | 550 | 7.3 | 10.0 |
| No. 1 | 200-600 | 23 | 20 | 374 (27.1) | 393 (26.9) | 350 | 390 | 5.1 | 11.4 |
| No. 2 | 125-400 | 21 | 19 | 247 (16.7) | 244 (22) | 250 | 210 | -1.2 | -16.0 |
| No. 3 | 100-230 | 17 | 18 | 158 (9.1) | 156 (11.2) | 150 | 155 | -1.3 | 3.3 |
| Soft Maple | | | | | | | | | |
| Prime | 160-400 | 18 | 18 | 279 (19.6) | 285 (12.1) | 250 | 300 | 2.2 | 20.0 |
| No. 1 | 160-310 | 20 | 19 | 219 (15.1) | 226 (11.4) | 200 | 220 | 3.2 | 10.0 |
| No. 2 | 100-220 | 20 | 18 | 171 (9.3) | 163 (9.5) | 170 | 170 | -4.7 | 0.0 |
| No. 3 | 100-220 | 13 | 17 | 142 (7.6) | 149 (9.7) | 150 | 160 | 4.9 | 6.7 |

¹ Standard error of the mean is given in parentheses below the mean.

Table 2. Prices paid for delivered sawlogs by Indiana sawmills, May 1995 and May 1996, cont.

| Species/Grade | Range (\$/MBF) | No. Respon. | | Mean (s.e.) ¹ | | Median | | Change (%) | |
|---------------|-------------------|-------------|------|--------------------------|---------------|------------------|------|------------|--------|
| | | 1995 | 1996 | 1995 (\$/MBF) | 1996 | 1995 (\$/MBF) | 1996 | Mean | Median |
| White Oak | | | | | | | | | |
| Prime | 200-900 | 23 | 22 | 648 (17.9) | 612 (31.1) | 600 | 600 | -5.6 | 0.0 |
| No. 1 | 250-680 | 24 | 21 | 469 (20.4) | 438 (23) | 500 | 450 | -6.6 | -10.0 |
| No. 2 | 150-400 | 25 | 20 | 310 (21.6) | 268 (19.2) | 300 | 295 | -13.6 | -1.7 |
| No. 3 | 100-240 | 18 | 18 | 181 (8.7) | 162 (11.3) | 180 | 160 | -10.5 | -11.1 |
| Red Oak | | | | | | | | | |
| Prime | 500-800 | 23 | 22 | 755 (14.5) | 700 (16.3) | 700 | 700 | -7.3 | 0.0 |
| No. 1 | 250-700 | 24 | 21 | 564 (21.4) | 519 (26.3) | 550 | 550 | -8.0 | 0.0 |
| No. 2 | 150-500 | 25 | 20 | 368 (27.4) | 301 (21.5) | 350 | 300 | -18.2 | -14.3 |
| No. 3 | 100-250 | 19 | 18 | 184 (8.9) | 167 (12.8) | 200 | 160 | -9.2 | -20.0 |
| Black Oak | | | | | | | | | |
| Prime | 400-800 | 20 | 20 | 682 (14.7) | 636 (19.4) | 700 | 625 | -6.7 | -10.7 |
| No. 1 | 250-700 | 23 | 21 | 494 (20.7) | 460 (21.9) | 500 | 450 | -6.9 | -10.0 |
| No. 2 | 125-350 | 23 | 20 | 312 (22.6) | 261 (15.5) | 300 | 300 | -16.4 | 0.0 |
| No. 3 | 100-220 | 16 | 17 | 176 (9.1) | 154 (10) | 180 | 160 | -12.5 | -11.1 |
| Tulip Poplar | | | | | | | | | |
| Prime | 300-450 | 24 | 21 | 413 (14.2) | 384 (10.3) | 400 | 400 | -7.0 | 0.0 |
| No. 1 | 200-350 | 24 | 21 | 289 (13.3) | 265 (11.2) | 300 | 275 | -8.3 | -8.3 |
| No. 2 | 100-250 | 22 | 19 | 199 (9.3) | 189 (10.1) | 200 | 200 | -5.0 | 0.0 |
| No. 3 | 100-220 | 14 | 18 | 150 (7) | 151 (9.4) | 150 | 155 | 0.7 | 3.3 |
| Sycamore | | | | | | | | | |
| Prime | 120-200 | 16 | 14 | 188 (13.1) | 181 (7.3) | 200 | 200 | -3.7 | 0.0 |
| No. 1 | 120-250 | 15 | 13 | 153 (8.8) | 169 (10.5) | 150 | 160 | 10.5 | 6.7 |
| No. 2 | 100-200 | 15 | 12 | 148 (11.5) | 135 (10.4) | 150 | 135 | -8.8 | -10.0 |
| No. 3 | 100-220 | 13 | 14 | 138 (8.5) | 156 (11.5) | 150 | 160 | 13.0 | 6.7 |

¹ Standard error of the mean is given in parentheses below the mean.

Table 2. Prices paid for delivered sawlogs by Indiana sawmills, May 1995 and May 1996, continued

| Species/Grade | Range | No. Respon. | | Mean (s.e) ¹ | | Median (SE) 1 | | Change (%) | |
|---------------------|----------|-------------|------|-------------------------|---------------|---------------|------|------------|--------|
| | | 1995 | 1996 | 1995 | 1996 | 1995 | 1996 | Mean | Median |
| Sweetgum | (\$/MBF) | | | (\$/MBF) | | (\$/MBF) | | | |
| Prime | 140-250 | 14 | 11 | 195 (12.2) | 194 (12.2) | 190 | 180 | -0.5 | -5.3 |
| No. 1 | 130-200 | 15 | 11 | 165 (9.1) | 166 (6.1) | 160 | 160 | 0.6 | 0.0 |
| No. 2 | 100-200 | 15 | 11 | 145 (7.8) | 143 (9.2) | 150 | 140 | -1.4 | -6.7 |
| No. 3 | 100-200 | 12 | 13 | 139 (7.9) | 152 (11.2) | 150 | 160 | 12.2 | 6.7 |
| Black Walnut | | | | | | | | | |
| Prime | 500-1050 | 20 | 17 | 973 (53.7) | 827 (42) | 1000 | 800 | -15.0 | -20.0 |
| No. 1 | 400-850 | 22 | 19 | 741 (45.2) | 615 (33.4) | 775 | 650 | -17.0 | -16.13 |
| No. 2 | 150-550 | 22 | 17 | 461 (46.9) | 350 (32.9) | 400 | 400 | -24.1 | 0.0 |
| No. 3 | 100-400 | 17 | 17 | 210 (23.9) | 184 (15.8) | 200 | 180 | -12.4 | -10.0 |
| Softwood | | | | | | | | | |
| Pine | | 1 | | 240 | | 240 | | | |
| Red cedar | | 1 | 1 | 400 | 350 | 400 | 350 | -12.5 | -12.5 |

¹ Standard error of the mean is given in parentheses below the mean.

Table 3. Hardwood Lumber prices, 4/4 Appalachian unless otherwise indicated (Hardwood Market Report, Memphis, Tenn.), \$ per MBF.

| | Lumber Grade | Jan. 1993 | July 1993 | Jan. 1994 | July 1994 | Jan 1995 | June 1995 | Jan 1996 | July 1996 |
|-----------------------|--------------|-----------|-----------|-----------|-----------|----------|-----------|----------|-----------|
| Ash | FAS + Prem. | 830 | 860 | 860 | 870 | 935 | 970 | 925 | 845 |
| | No. 1C | 485 | 545 | 565 | 630 | 695 | 725 | 680 | 600 |
| | No. 2A | 220 | 265 | 285 | 330 | 365 | 380 | 360 | 325 |
| Basswood | FAS + Prem. | 655 | 675 | 675 | 690 | 710 | 710 | 710 | 710 |
| | No. 1C | 310 | 320 | 320 | 335 | 350 | 350 | 350 | 350 |
| | No. 2A | 190 | 225 | 225 | 225 | 225 | 225 | 220 | 195 |
| Beech | FAS | 335 | 385 | 395 | 425 | 440 | 440 | 440 | 430 |
| | No. 1C | 295 | 345 | 355 | 385 | 400 | 400 | 400 | 390 |
| | No. 2A | 235 | 275 | 285 | 315 | 325 | 325 | 325 | 320 |
| Cottonwood (Southern) | FAS | 480 | 515 | 555 | 625 | 635 | 625 | 605 | 600 |
| | No. 1C | 315 | 340 | 380 | 430 | 435 | 425 | 405 | 400 |
| | No. 2A | 170 | 220 | 240 | 260 | 255 | 240 | 220 | 220 |
| Cherry | FAS + Prem. | 1,400 | 1,495 | 1,510 | 1,585 | 1,685 | 1,725 | 1,670 | 1,670 |
| | No. 1C | 850 | 1,025 | 1,040 | 1,040 | 1,040 | 990 | 845 | 845 |
| | No. 2A | 450 | 575 | 590 | 590 | 590 | 550 | 445 | 445 |
| Elm (Southern) | FAS | 335 | 340 | 345 | 355 | 355 | 355 | 355 | 355 |
| | No. 1C | 315 | 320 | 325 | 335 | 335 | 335 | 335 | 335 |
| | No. 2B | 215 | 260 | 265 | 270 | 270 | 270 | 270 | 270 |
| Hickory | FAS | 355 | 395 | 405 | 445 | 455 | 455 | 455 | 455 |
| | No. 1C | 335 | 375 | 385 | 425 | 435 | 435 | 435 | 435 |
| | No. 2A | 210 | 240 | 245 | 265 | 265 | 265 | 265 | 265 |
| Hard Maple | FAS + Prem. | 940 | 1,075 | 1,030 | 1,015 | 1,015 | 1,015 | 990 | 1,060 |
| | No. 1C | 650 | 760 | 750 | 730 | 675 | 660 | 625 | 635 |
| | NO. 2A | 415 | 495 | 485 | 475 | 425 | 400 | 370 | 370 |
| Soft Maple | FAS + Prem. | 680 | 805 | 815 | 825 | 825 | 760 | 700 | 715 |
| | No. 1C | 495 | 590 | 600 | 610 | 600 | 560 | 500 | 500 |
| | No. 2A | 320 | 395 | 405 | 410 | 400 | 365 | 325 | 325 |
| White Oak -Plain | FAS + Prem. | 1,010 | 955 | 880 | 880 | 975 | 990 | 1,005 | 1,005 |
| | No. 1C | 540 | 540 | 535 | 535 | 565 | 585 | 600 | 600 |
| | No. 2A | 320 | 390 | 340 | 325 | 315 | 315 | 315 | 305 |
| Red Oak-Plain | FAS + Prem. | 1,065 | 1,140 | 1,140 | 1,170 | 1,275 | 1,265 | 1,130 | 1,010 |
| | No. 1C | 780 | 800 | 780 | 750 | 740 | 735 | 705 | 705 |
| | No. 2A | 400 | 485 | 455 | 420 | 400 | 400 | 400 | 400 |
| Yellow Poplar | FAS + Prem. | 570 | 615 | 710 | 750 | 750 | 685 | 625 | 650 |
| | No. 1C | 320 | 420 | 425 | 425 | 420 | 365 | 330 | 355 |
| | No. 2A | 215 | 315 | 310 | 305 | 275 | 240 | 235 | 250 |

Table 3. Hardwood Lumber prices, 4/4 Appalachian unless otherwise indicated (Hardwood Market Report, Memphis, Tenn.), \$ per MBF, cont.

| | Lumber Grade | Jan. 1993 | July 1993 | Jan. 1994 | July 1994 | Jan. 1995 | June 1995 | Jan. 1996 | July 1996 |
|---------------------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Sycamore (Southern, Plain) | | | | | | | | | |
| | FAS | 340 | 365 | 415 | 445 | 455 | 455 | 455 | 455 |
| | No. 1C | 320 | 345 | 395 | 425 | 435 | 435 | 435 | 435 |
| | No. 2A | 280 | 305 | 350 | 370 | 375 | 375 | 375 | 375 |
| Black Walnut | | | | | | | | | |
| | FAS | 1,605 | 1,605 | 1,615 | 1,615 | 1,615 | 1,600 | 1535 | 1455 |
| | No. 1C | 855 | 855 | 855 | 855 | 855 | 855 | 810 | 780 |
| | No. 2A | 290 | 290 | 290 | 290 | 290 | 290 | 290 | 290 |

VENEER LOG PRICES

The number of reporting mills decreased. In addition, the number of mills reporting prices for large logs decreased, reflecting the scarcity of veneer logs in the 20-inch dib and larger size category for most species.

If only one mill reported a price for a given species and grade the price is not shown to avoid misrepresenting the market.

The tables show very large price changes for some log categories. Note that in most cases this resulted from the reduction in the number of mills reporting a price for that category. In such cases the changes should be given little significance.

Table 4. Prices paid for delivered veneer logs by Indiana veneer mills, May 1995 and May 1996.

| Species/Grade/Log Dia. | 1996 Range | No. Respon. | | Mean (s.e.) ¹ | | Median | | Change (%) | |
|------------------------|------------|-------------|------|--------------------------|-----------------|----------|------|------------|--------|
| | | 1995 | 1996 | 1995 | 1996 | 1995 | 1996 | Mean | Median |
| Black Walnut | | | | (\$/MBF) | | (\$/MBF) | | | |
| Prime | | | | | | | | | |
| 12-13 | 1500-1500 | 8 | 3 | 1750 (277.7) | 1500 (0) | 1750 | 1500 | -14.3 | -14.3 |
| 14-15 | 1500-2500 | 8 | 3 | 1833 (401.1) | 2000 (288.7) | 2250 | 2000 | 9.1 | 11.1 |
| 16-17 | 2500-3000 | 8 | 3 | 2775 (526) | 3000 (288.7) | 2750 | 3000 | 8.1 | 9.1 |
| 18-20 | 3000-5000 | 7 | 2 | 3729 (917.2) | 4000 (1000) | 3000 | 4000 | 7.3 | 25.0 |
| 21-23 | 4000-6000 | 6 | 2 | 3600 (1219.8) | 5000 (1000) | 2500 | 5000 | 38.9 | 100.0 |
| 24-28 | 0-0 | 6 | 0 | 4017 (1388.6) | | 2750 | | | |
| *28 | 0-0 | 6 | 0 | 4183 (1445.1) | | 2750 | | | |
| Select | | | | | | | | | |
| 12-13 | 1200-1200 | 5 | 1 | 1080 (217.7) | | 1400 | | | |
| 14-15 | 1500-2000 | 5 | 2 | 1400 (356.4) | 1750 (250) | 1400 | 1750 | 25.0 | 25.0 |
| 16-17 | 2500-3000 | 5 | 2 | 1540 (446.8) | 2750 (250) | 1400 | 2750 | 78.6 | 96.4 |
| 18-20 | 4000-4000 | 4 | 1 | 1800 (743.9) | | 1200 | 4000 | | |
| 21-23 | 5500-5500 | 4 | 1 | 1800 (743.9) | | 1200 | 5500 | | |
| 24-28 | 0-0 | 4 | 0 | 2050 (-991.2) | | 1200 | | | |
| *28 | 0-0 | 4 | 0 | 2300 (1239.6) | | 1200 | | | |

¹ Standard error of the mean is given in parentheses below the mean

Table 4. Prices paid for delivered veneer logs by Indiana veneer mills, May 1995 and May 1996, cont..

| Species/Grade Log Dia. | 1996 Range (\$/MBF) | No. Respon. | | Mean (s.e.) ¹ | | Median | | Change (%) | |
|---------------------------|---------------------------|-------------|------|--------------------------|-----------------|----------|------|------------|--------|
| | | 1995 | 1996 | 1995 | 1996 | 1995 | 1996 | Mean | Median |
| White Oak | | | | (\$/MBF) | | (\$/MBF) | | | |
| Prime | | | | | | | | | |
| 13-14 | 800-1500 | 7 | 4 | 1129 (114.4) | 1238 (151.9) | 1200 | 1325 | 0.8 | 10.4 |
| 15-17 | 1000-2100 | 7 | 4 | 1336 (206.7) | 1650 (253.3) | 1350 | 1750 | 23.5 | 29.6 |
| 18-20 | 1800-2750 | 7 | 4 | 1721 (223) | 2263 (219.2) | 1750 | 2250 | 31.5 | 28.6 |
| 21-23 | 2400-3000 | 6 | 4 | 1992 (316.3) | 2850 (150.0) | 2000 | 3000 | 43.1 | 50.0 |
| 24-28 | 3000-3000 | 5 | 1 | 1940 (365.5) | | 2000 | | | |
| *28 | 4000-4000 | 5 | 1 | 2040 (382.9) | | 2000 | | | |
| Select | | | | | | | | | |
| 13-14 | 700-1200 | 3 | 2 | 767 (33.3) | 950 (250) | 800 | 950 | 23.9 | 18.8 |
| 15-17 | 800-2000 | 4 | 3 | 963 (143.4) | 1333 (352.8) | 900 | 1200 | 38.4 | 33.3 |
| 18-20 | 1500-2250 | 4 | 3 | 1175 (197.4) | 1916 (268.2) | 1250 | 1500 | 63.1 | 20.0 |
| 21-23 | 1500-2250 | 3 | 3 | 1317 (316.7) | 2000 (220.5) | 1500 | 2000 | 51.9 | 33.3 |
| 24-28 | | 3 | 0 | 1317 (316.7) | | 1500 | | | |
| *28 | | 3 | 0 | 1417 (358.6) | | 1750 | | | |

¹ Standard error of the mean is given in parentheses below the mean.

Table 4. Prices paid for delivered veneer logs by Indiana veneer mills, May 1995 and May 1996, cont.

| Species/Grade/ Log Dia. Red Oak Prime | 1996 Range (\$/MBF) | No. Respon. | | Mean (s.e) ¹ | | Median | | Change (%) | |
|--|---------------------------|-------------|------|-------------------------|-----------------|--------|------|------------|--------|
| | | 1995 | 1996 | 1995 | 1996 | 1995 | 1996 | Mean | Median |
| 16-17 | 1300-2200 | 5 | 3 | 1260 (163.1) | 1733 (260.3) | 1100 | 1700 | 37.5 | 54.55 |
| 18-20 | 1300-2500 | 5 | 3 | 1380 (220) | 1867 (348.0) | 1200 | 1800 | 35.3 | 50.0 |
| 21-23 | 1300-2500 | 4 | 3 | 1225 (201.6) | 1867 (348.0) | 1100 | 1800 | 52.4 | 63.6 |
| 24-28 | 1300-1300 | 4 | 1 | 1225 (201.6) | | 1100 | | | |
| *28 | 1300-1300 | 4 | 1 | 1225 (201.6) | | 1100 | | | |
| Select | | | | | | | | | |
| 16-17 | 1200-1450 | 2 | 2 | 850 (50) | 1325 (125) | 850 | 1325 | 55.9 | 55.9 |
| 18-20 | 1200-1500 | 2 | 2 | 850 (50) | 1350 (150) | 850 | 1350 | 58.8 | 58.8 |
| 21-23 | 1200-1500 | 2 | 2 | 700 (200) | 1350 (150) | 700 | 1350 | 92.9 | 92.9 |
| 24-28 | 0-0 | 2 | 0 | 950 (50) | | 950 | | | |
| *28 | 0-0 | 2 | 0 | 950 (50) | | 950 | | | |

¹ Standard error of the mean is given in parentheses below the mean.

Table 4. Prices paid for delivered veneer logs by Indiana veneer mills, May 1995 and May 1996, cont.

| Species/Grade/ Log Dia. | 1996 Range (\$/MBF) | No. Respon. | | Mean (s.e.) ¹ | | Median | | Change (%) | |
|----------------------------|---------------------------|-------------|------|--------------------------|-----------------|------------------|------|------------|--------|
| | | 1995 | 1996 | 1995 (\$/MBF) | 1996 | 1995 (\$/MBF) | 1996 | Mean | Median |
| Hard Maple | | | | | | | | | |
| Prime | | | | | | | | | |
| 16-20 | 1500-2700 | 4 | 3 | 1163 (279) | 2233 (371) | 1250 | 2500 | 92.0 | 100.0 |
| *20 | 3000-3000 | 4 | 1 | 1013 (349) | | 800 | | | |
| Select | | | | | | | | | |
| 16-20 | 1000-1200 | 3 | 2 | 683 (164.1) | 1100 (100.0) | 600 | 1100 | 61.1 | 83.3 |
| *20 | | 2 | 0 | 450 (0) | | 450 | | | |
| Tulip Poplar | | | | | | | | | |
| Prime | | | | | | | | | |
| 16-20 | 400-600 | 4 | 3 | 500 (35.4.) | 500 (57.7) | 475 | 500 | 0.0 | 5.0 |
| *20 | 400-500 | 4 | 2 | 563 (65.7) | 450 (50) | 550 | 450 | -20.1 | -18.2 |
| Select | | | | | | | | | |
| 16-20 | 300-600 | 3 | 2 | 383 (44.1) | 450 (150) | 400 | 450 | 17.5 | 12.5 |
| *20 | 300-300 | 2 | 1 | 425 (25) | | 425 | | | |

¹ Standard error of the mean is given in parentheses below the mean.

CUSTOM COSTS AND MISCELLANEOUS PRODUCTS

The few mills reporting custom costs and prices for minor forest products makes analysis difficult.

Custom Costs

Custom costs in 1996 were about the same as 1995. An exception is hauling cost which continued the decline reported in 1995. Haul distance continued to increase, but reported cost per MBF was down slightly. Like last year, this is likely due to the use of larger trucks and elimination of on-board loaders.

Table 5. Custom costs reported by Indiana mills, May 1995, and May 1996.

| | No. Responses | 1996 Range | Mean | | Median | |
|------------------|---------------|------------|------|------|--------|------|
| | | | 1995 | 1996 | 1995 | 1996 |
| Sawing (\$/MBF) | 10 | 100-200 | 179 | 169 | 180 | 180 |
| Logging (\$/MBF) | 3 | 75-120 | 94 | 98 | 78 | 100 |
| Hauling (\$/MBF) | 4 | 12.5-100 | 68 | 56 | 65 | 55 |
| Distance (Miles) | 6 | 10-80 | 46 | 48 | 35 | 50 |
| \$/MBF/Mile | 4 | 0.56-2.00 | 1.28 | 1.22 | 1.40 | 1.30 |

Miscellaneous Products

Prices for miscellaneous products, Table 6, generally increased. The price for pallet logs was somewhat higher reflecting steady industrial output in the midwest region. Markets for bark for mulch also remain strong.

Table 6. Prices of miscellaneous products reported by Indiana mills, May 1995 and May 1996, fob the producing mill.

| | No. Responses | 1996 Range | Mean | | Median | |
|---------------------|---------------|------------|-------|-------|--------|-------|
| | | | 1995 | 1996 | 1995 | 1996 |
| Pallet logs, \$/MBF | 14 | 100-340 | 180 | 181 | 170 | 180 |
| Pulp Chips, \$/ton | 15 | 6.15-21.00 | 12.98 | 13.60 | 12.75 | 13.75 |
| Sawdust, \$/ton | 12 | 0.50-20.00 | 5.71 | 6.00 | 5.00 | 5.13 |
| Bark, \$/ton | 16 | 5.00-40.00 | 10.30 | 14.70 | 10.00 | 9.30 |

Handle and Container Veneer Logs

Handle log prices were generally lower, Table 7. The number of mills reporting handle log prices decreased from five to three. All the mills reporting were handle mills. One mill reported container veneer log prices. They were paying \$250 for all grades of soft maple, sycamore, cottonwood, and gum. They also purchased poplar for \$400, 350, and 300 for Prime, No. 1 and No. 2 grades, respectively.

Table 7. Prices paid for handle logs by Indiana mills, May 1995 and May 1996, fob mill.

| | No. Responses | 1996 Range | Mean | |
|-------------|---------------|---------------|------------------|------------------|
| | | | 1995 (\$/MBF) | 1996 (\$/MBF) |
| White Ash | | | | |
| No. 1 | 3 | 600-550 | 633 | 600 |
| No. 2 | 3 | 350-500 | 483 | 417 |
| No. 3 | 2 | 250-400 | 275 | 325 |
| Hickory | | | | |
| No. 1 | 1 | 300-300 | 250 | 300 |
| No. 2 | 1 | 250-250 | 290 | 250 |
| No. 3 | 1 | 200-200 | -- | 200 |
| Sugar Maple | | | | |
| No. 1 | 2 | 400-550 | 600 | 475 |
| No. 2 | 2 | 300-350 | 400 | 325 |
| No. 3 | 1 | 250-250 | 200 | 250 |

INDIANA TIMBER PRICE INDEX -- UPDATE

The delivered log prices collected in the Indiana Forest Products Price Survey are used to calculate the delivered log value of typical stands of timber. This provides trend-line data that can be used to monitor long-term price trends for timber. The species distribution used to calculate the weighted averages are presented in Table 8. The log quality weights used are presented in Table 9. These weights are based primarily on the 1967 Forest Survey of Indiana. The weights will be adjusted in the future to reflect changes in species composition and timber quality as reflected in the 1986 Forest Survey.

The nominal (not deflated) price, columns 3 and 6 of Table 10, are a weighted average of the delivered log prices reported in the price survey. The price indexes, columns 4 and 7, are the series of nominal prices divided by the price in 1957, the base year multiplied by 100. Thus, the index is the percentage of the 1957 price. For example, the average price in 1996 was 615 percent of the price in 1957. The real prices, columns 5 and 8 are the actual prices deflated by the producer price index for finished goods with 1982 as the base year, Figure 10. The real price series represents the purchasing power of dollars based on a 1982 market basket of industrial goods. It's this real price trend that is important to long-term investments like timber.

The results for 1995 are different than those reported in the bulletin for 1995. This is because the producer price index for all of 1995 is used to recalculate the

averages for 1995. These recalculations have also occurred in previous years. The changes are usually minor.

Average Stand

The nominal weighted average price decreased from \$354.60 in 1995 to \$341.80 in 1996 for the average stand, Table 10, column 3. This is a 3.6 percent decrease, about the same as the decline from 1994 to 1995. Note that this decline is much less than the 10 percent average decline for oak sawlogs. Price increases for several of the lower valued but abundant species provided a diversify affect.

The real price dropped below the trend line for the first time since 1992, Figure 16. By definition the trend line splits the difference between annual prices above and below the trend line. Thus, further price declines will pull down the trend line. The average annual compound rate of increase for the trend line was essentially the same, 1.10 percent in 1995 to 1.09 in 1996, Figure 16. The new equation for the trend line for the 1957 to 1996 period is,

Avg. Index = $171.51 + 2.34 \times T$,
where,

T=1 for 1957, 2 for 1958,
etc.

A linear trend line should be used if it's necessary to project timber prices, as discussed in greater detail in Station Bulletin No. 148. Although it's easier to simply plug the average annual compound rate of increase value into the compound interest formula

(exponential rate of increase), projections much over 15 years gives unrealistic results. Real prices can't increase exponentially for long periods of time. Market adjustments, like those observed for black walnut, come into play to retard the increase and eventually reverse it.

Quality Stand

The nominal weighted average price for the quality stand increased by 13.6 percent from 490.1 in 1995 to 553.1 in 1996, Table 10, column 6. The increase was due almost entirely to increases in reported veneer log prices. The increase is probably overstated because of the small number of mills reporting veneer log prices. The averages used may not be representative of overall market conditions.

The average annual compound rate of increase for the trend line stayed the same at 1.81%,

Figure 16, compared to 1.80 in 1995. The equation for the trend line is,

$$\text{Qual. Index} = 194.17 + 5.16 \times T$$

Table 8. Species composition of the Indiana timber price index for an average and a quality stand.

| Species | Average Stand | Quality Stand |
|--------------------|---------------|---------------|
| Veneer species: | (%) | (%) |
| White oak | 13.4 | 21.0 |
| Red oak | 15.1 | 20.0 |
| Hard maple | 9.6 | 14.0 |
| Yellow poplar | 7.5 | 9.0 |
| Black walnut | 5.4 | 5.0 |
| Nonveneer species: | | |
| White ash | 5.8 | 3.1 |
| Basswood | 1.5 | 3.1 |
| Beech | 5.6 | 3.1 |
| Cottonwood | 6.2 | 3.1 |
| Black cherry | 0.8 | 3.1 |
| Elm | 1.2 | 3.1 |
| Hickory | 4.7 | 3.1 |
| Soft maple | 6.7 | 3.1 |
| Black oak | 11.4 | 3.1 |
| Sycamore | 5.1 | 3.1 |

Table 9. Log quality composition of the Indiana timber price index for an average and a quality stand.

| Log Grade | Average Stand | | Quality Stand | |
|-------------|----------------|-------------------|----------------|-------------------|
| | Veneer Species | Nonveneer Species | Veneer Species | Nonveneer Species |
| Veneer logs | (%) | (%) | (%) | (%) |
| Prime | 1.0 | 0.0 | 7.0 | 0.0 |
| Select | 3.0 | 0.0 | 13.0 | 0.0 |
| Sawlogs | | | | |
| Prime | 20.0 | 24.0 | 19.0 | 24.0 |
| No. 1 | 26.0 | 26.0 | 21.0 | 26.0 |
| No. 2 | 38.0 | 38.0 | 33.0 | 38.0 |
| No. 3 | 12.0 | 12.0 | 7.0 | 12.0 |

Table 10. Weighted average actual price, price index, and deflated price for an average and quality stand of timber in Indiana, 1957 to 1996.

| Year | Producer Price Index | Average Stand | | | Quality Stand | | |
|------|----------------------|---------------|--------------|-------------------------|---------------|--------------|-------------------------|
| | | Nominal Price | Index Number | Real Price ¹ | Nominal Price | Index Number | Real Price ¹ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| | | (\$/MBF) | | (\$/MBF) | (\$/MBF) | | (\$/MBF) |
| 1957 | 32.5 | 55.6 | 100.0 | 171.0 | 66.5 | 100.0 | 204.7 |
| 1958 | 33.2 | 54.3 | 97.7 | 163.6 | 66.1 | 99.4 | 199.2 |
| 1959 | 33.1 | 54.7 | 98.4 | 165.2 | 68.1 | 102.4 | 205.7 |
| 1960 | 33.4 | 58.0 | 104.4 | 173.6 | 69.9 | 105.1 | 209.3 |
| 1961 | 33.4 | 59.5 | 107.1 | 178.1 | 70.4 | 105.9 | 210.9 |
| 1962 | 33.5 | 59.8 | 107.6 | 178.4 | 72.9 | 109.5 | 217.5 |
| 1963 | 33.4 | 59.4 | 107.0 | 177.9 | 75.3 | 113.1 | 225.3 |
| 1964 | 33.5 | 60.9 | 109.6 | 181.7 | 75.1 | 112.9 | 224.2 |
| 1965 | 34.1 | 65.0 | 117.0 | 190.7 | 80.6 | 121.1 | 236.3 |
| 1966 | 35.2 | 69.7 | 125.5 | 198.1 | 88.0 | 132.2 | 249.9 |
| 1967 | 35.6 | 71.9 | 129.4 | 202.0 | 89.0 | 133.7 | 249.9 |
| 1968 | 36.6 | 76.5 | 137.6 | 208.9 | 97.6 | 146.6 | 266.6 |
| 1969 | 38.0 | 78.7 | 141.6 | 207.1 | 100.0 | 150.3 | 263.1 |
| 1970 | 39.3 | 84.1 | 151.4 | 214.0 | 105.5 | 158.5 | 268.4 |
| 1971 | 40.5 | 87.0 | 156.6 | 214.8 | 109.5 | 164.5 | 270.3 |
| 1972 | 41.8 | 89.8 | 161.7 | 214.9 | 112.8 | 169.6 | 269.9 |
| 1973 | 45.6 | 113.5 | 204.3 | 249.0 | 143.7 | 215.9 | 315.1 |
| 1974 | 52.6 | 135.1 | 243.2 | 256.8 | 175.9 | 264.4 | 334.4 |
| 1975 | 58.2 | 124.9 | 224.9 | 214.7 | 169.9 | 255.4 | 292.0 |
| 1976 | 60.8 | 133.5 | 240.2 | 219.5 | 177.6 | 266.9 | 292.1 |
| 1977 | 64.7 | 143.5 | 258.2 | 221.8 | 194.7 | 292.7 | 300.9 |
| 1978 | 69.8 | 181.7 | 327.1 | 260.4 | 247.6 | 372.1 | 354.7 |
| 1979 | 77.6 | 200.1 | 360.2 | 257.9 | 276.7 | 415.9 | 356.5 |
| 1980 | 88.0 | 208.8 | 375.8 | 237.3 | 326.7 | 491.0 | 371.2 |
| 1981 | 96.1 | 206.6 | 371.9 | 215.0 | 300.2 | 451.2 | 312.3 |
| 1982 | 100.0 | 201.5 | 362.6 | 201.5 | 293.3 | 440.9 | 293.3 |
| 1983 | 101.6 | 201.0 | 361.8 | 197.8 | 278.3 | 418.3 | 273.9 |
| 1984 | 103.7 | 233.6 | 420.4 | 225.3 | 336.7 | 506.1 | 324.7 |
| 1985 | 104.7 | 210.4 | 378.8 | 201.0 | 290.3 | 436.4 | 277.3 |
| 1986 | 103.2 | 224.1 | 403.4 | 217.2 | 331.6 | 498.4 | 321.3 |
| 1987 | 105.4 | 258.0 | 464.3 | 244.7 | 358.4 | 538.7 | 340.0 |
| 1988 | 108.0 | 262.7 | 472.8 | 243.2 | 366.5 | 550.9 | 339.4 |
| 1989 | 113.6 | 288.8 | 519.9 | 254.3 | 445.0 | 668.9 | 391.7 |
| 1990 | 119.2 | 290.5 | 522.9 | 243.7 | 433.4 | 651.4 | 363.6 |
| 1991 | 121.7 | 270.1 | 486.2 | 222.0 | 395.5 | 594.4 | 325.0 |
| 1992 | 123.2 | 295.1 | 531.2 | 239.5 | 454.9 | 683.8 | 369.2 |
| 1993 | 124.7 | 357.1 | 642.7 | 286.4 | 537.8 | 808.3 | 431.2 |
| 1994 | 125.5 | 367.6 | 661.6 | 292.9 | 563.1 | 846.5 | 448.7 |
| 1995 | 127.9 | 354.6 | 638.1 | 277.2 | 487.0 | 732.1 | 380.8 |
| 1996 | 131.5 | 341.8 | 615.1 | 259.9 | 553.1 | 831.3 | 420.6 |

¹ Actual price deflated by Producer Price Index for Finished Goods, U.S. Dept. Commerce, 1982 base year.

IMPLICATIONS

Hardwood markets are continuously sorting out changes in consumer preferences, resource availability, mill capacities, weather patterns, and many other factors. Despite continuous adjustments, some periods are more stable than others. The last couple of years have seen a larger than usual number of adjustments.

During these times timber owners need to use appropriate marketing strategies, just like timber buyers need to carefully adjust their offering prices to reflect changes in lumber and veneer markets. The prices in this report reflect trends, not current market conditions. It's appropriate to use them to determine if a quoted price is "reasonable," but not to establish the current fair market value of a given stand of timber.

Changes in the relative values of species supports the importance of species diversification in hardwood timber management. The time value of money and long growth period for hardwoods dictates working with the species you have in your stands whenever possible. Keeping a mix of species allows timber owners who have established a regular cutting cycle to capture the value of the species in favor at the time of a timber sale while leaving others for future growth. But, relative values and the need for quality must still be given high priority when marking a TSI or selective harvest.

The trend for the real price of timber on average to increase in the 1 to 2 percent range per year can be expected to continue. Expectations should be realistic, however. Real prices can't go up forever. Walnut prices have taught us a lesson, I hope, about the great capacity of markets to accommodate scarcity.

Figure 1. Ash lumber price, monthly, 1974 to Aug. 1996,
4/4 Applachian, Hdwd. Mkt. Report, Memphis, TN

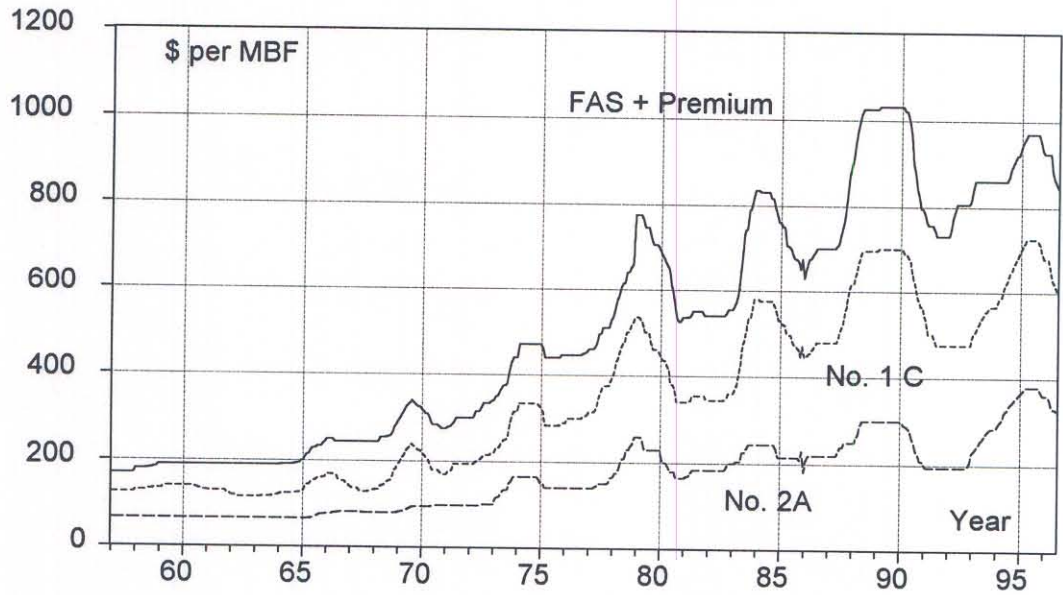


Figure 2. Basswood lumber prices, monthly, 1974 to Aug. 1996,
4/4 Applachian, Hdwd. Mkt. Report, Memphis, TN.

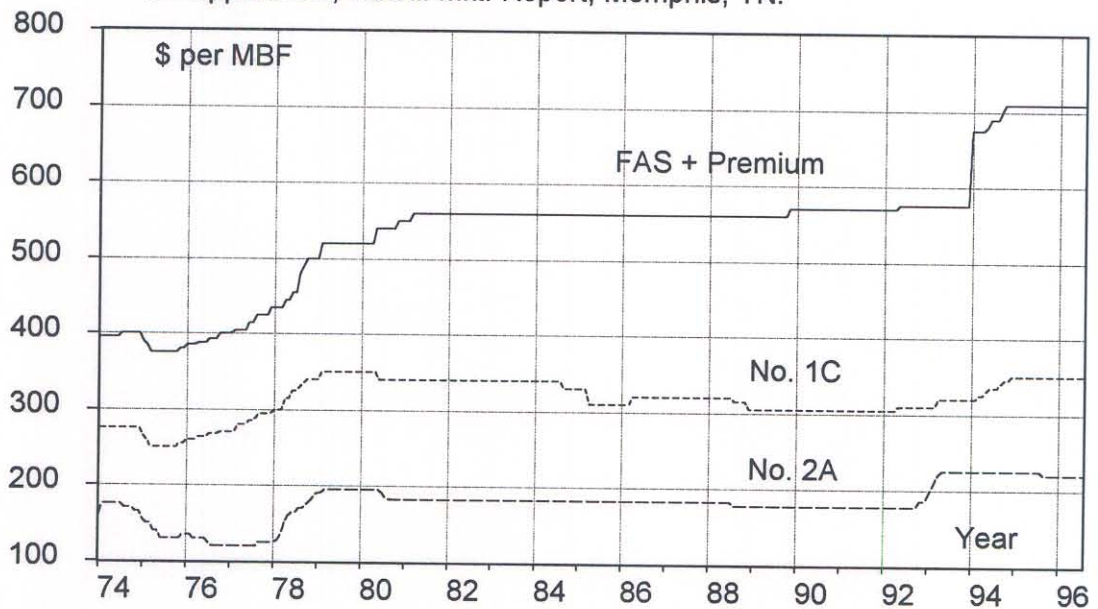


Figure 3. Beech lumber prices, monthly, 1974 to August 1996,
4/4 Applachian, Hdwd. Mkt. Report, Memphis, TN

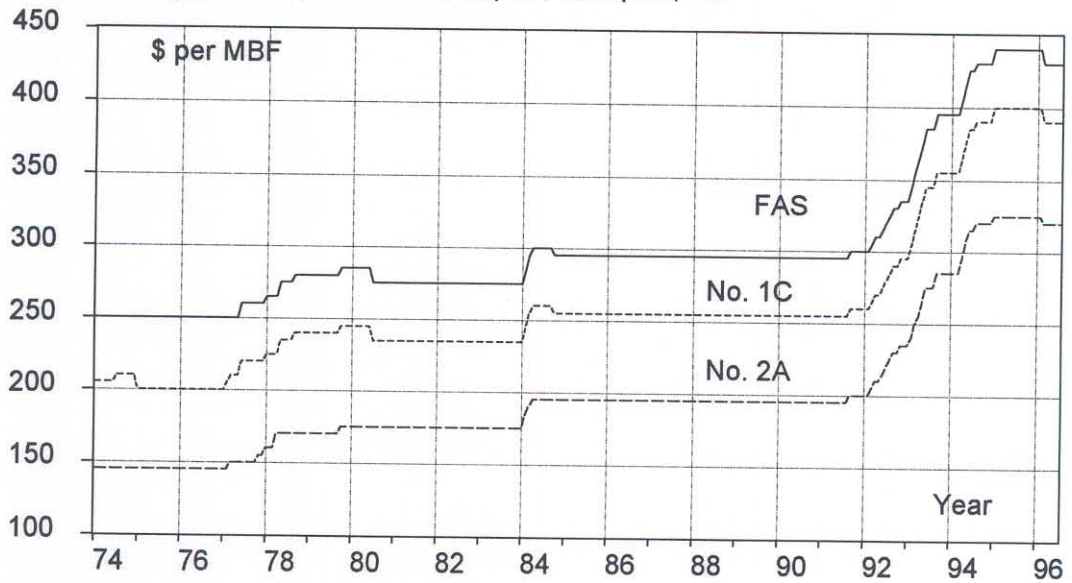


Figure 4. Cottonwood lumber prices, monthly, 1974 to Aug. 1996,
4/4 Southern, Hdwd. Mkt. Rpt., Memphis TN.

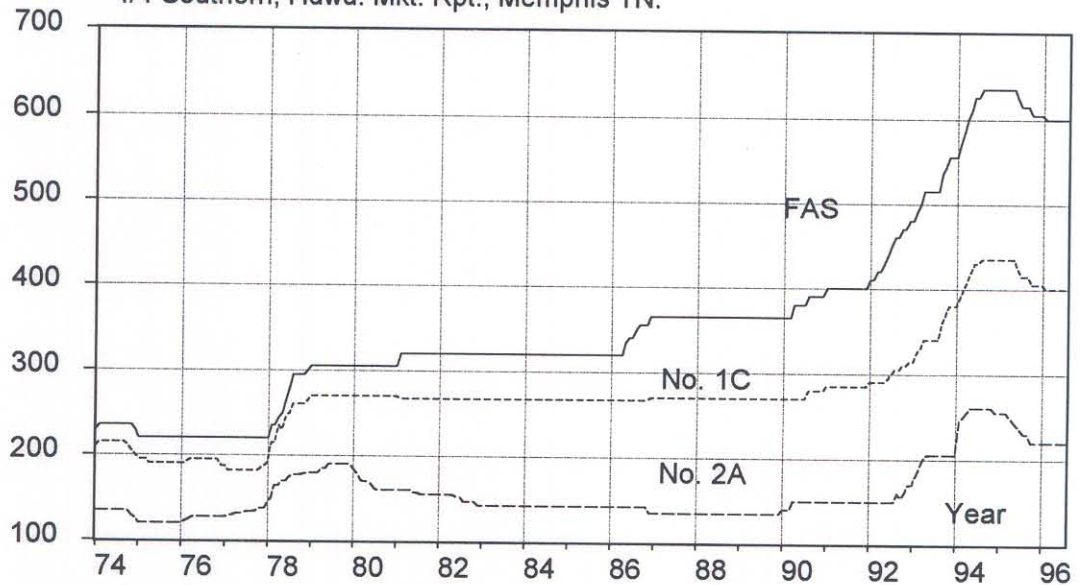


Figure 5. Black cherry lumber prices, monthly, 1974 to August 1996, 4/4 Appalachian, Hdwd. Mkt. Report, Memphis, TN.

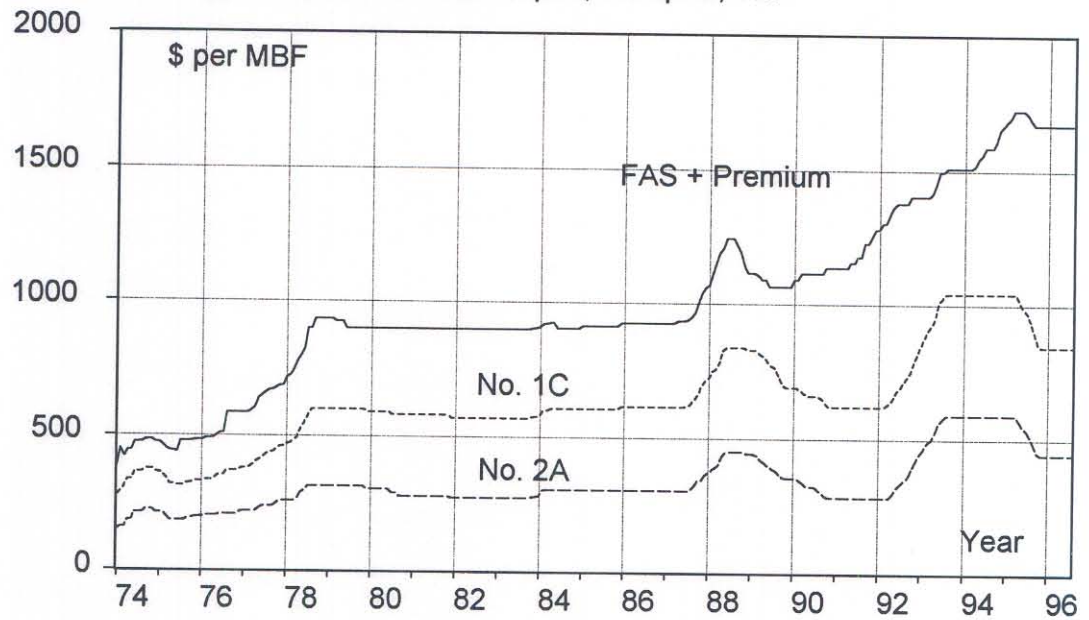


Figure 6. Elm lumber prices, monthly, 1974 to August 1996, 4/4 Southern, Hdwd. Mkt. Rpt., Memphis, TN.

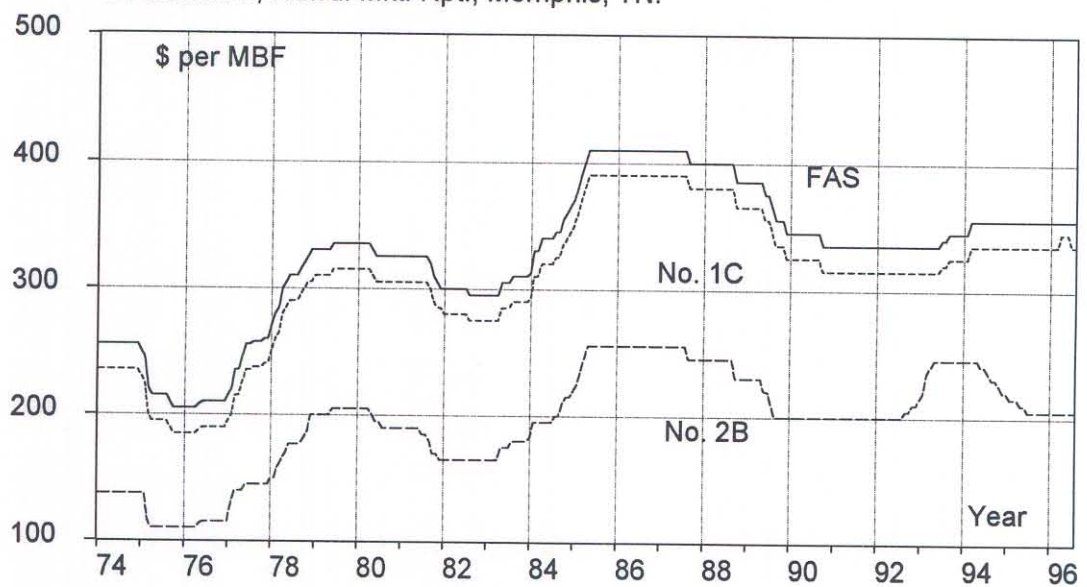


Figure 7. Hickory lumber prices, monthly, 1974 to August 1996,
4/4 Applachian, Hded. Mkt. Report, Memphis, TN.

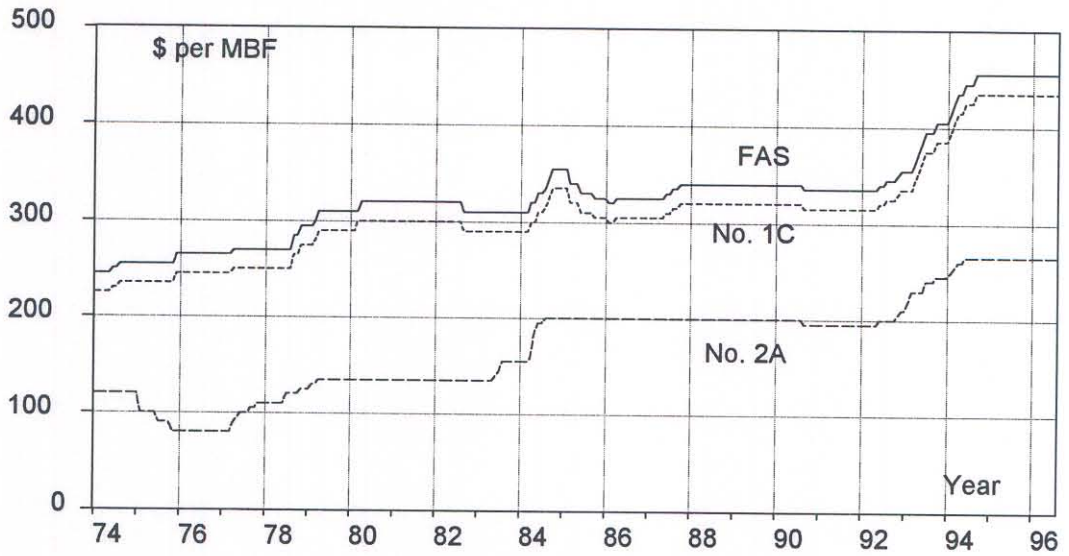


Figure 8. Hard maple lumber prices, monthly, 1974 to August 1996,
4/4 Applachian, Hdwd. Mkt. Report, Memphis, TN.

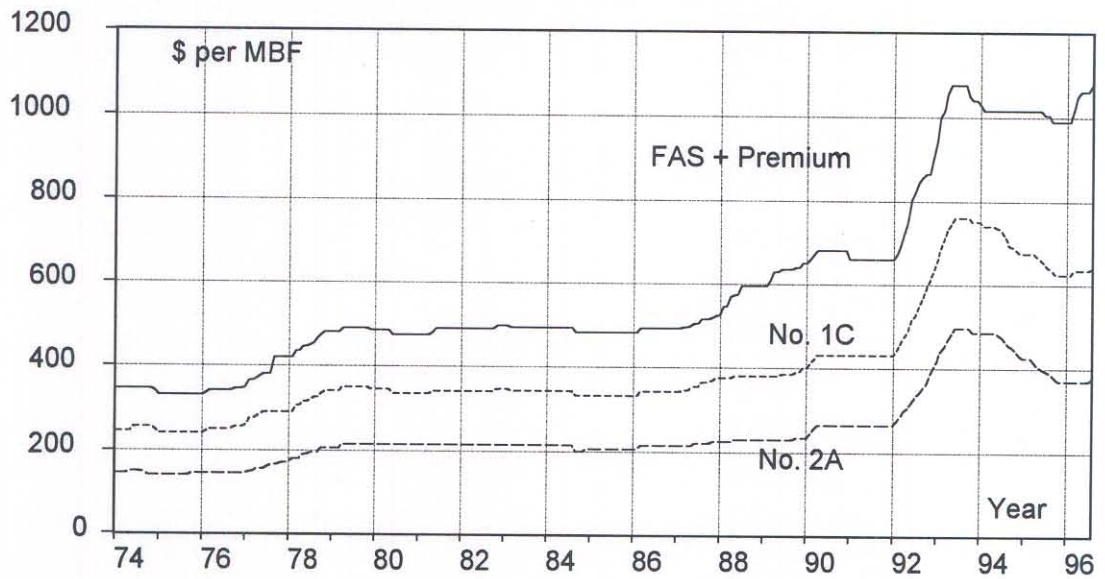


Figure 9. Soft maple lumber prices, monthly, 1974 to August 1996,
4/4 Applachian, Hdwd. Mkt. Report, Memphis, TN.

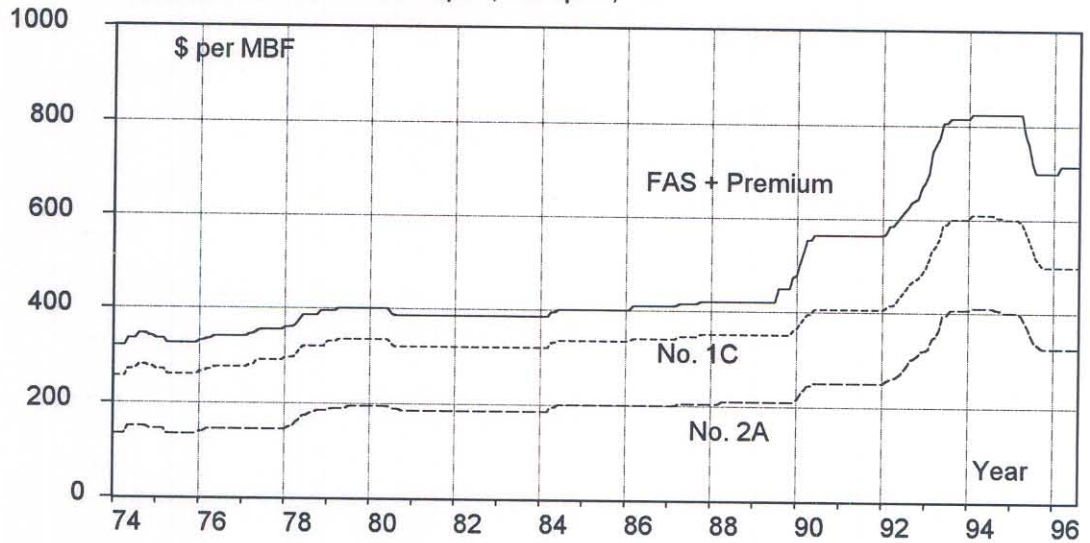


Figure 10. White oak lumber prices, monthly, 1974 to August 1996,
4/4 Applachian, Hdwd. Mkt. Report, Memphis, TN.

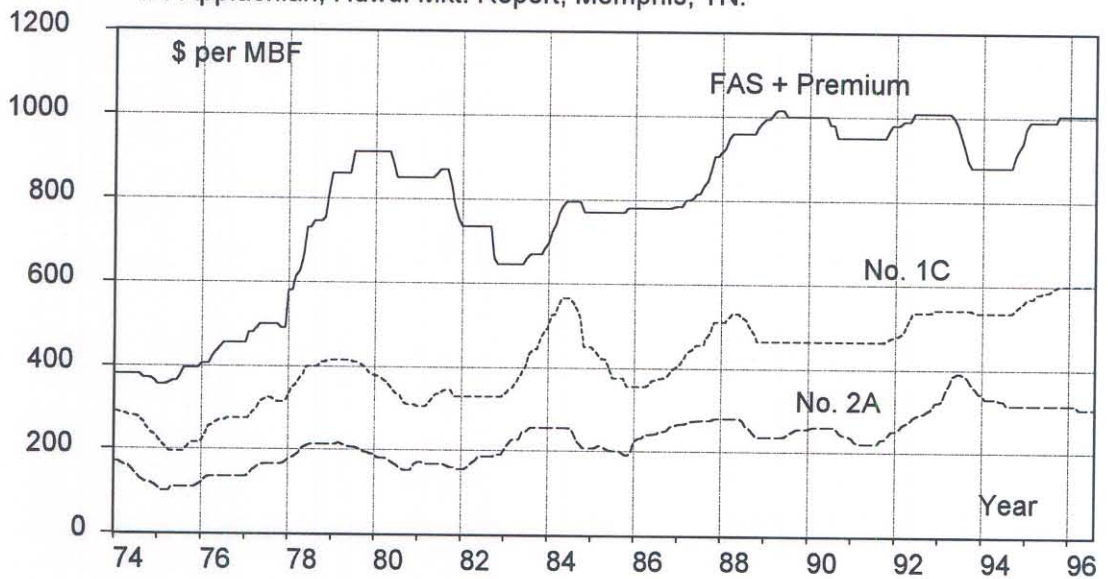


Figure 11. Red oak lumber prices, monthly, 1974 to August 1996,
4/4 Applachian, Hdwd. Mkt. Report, Memphis, TN.

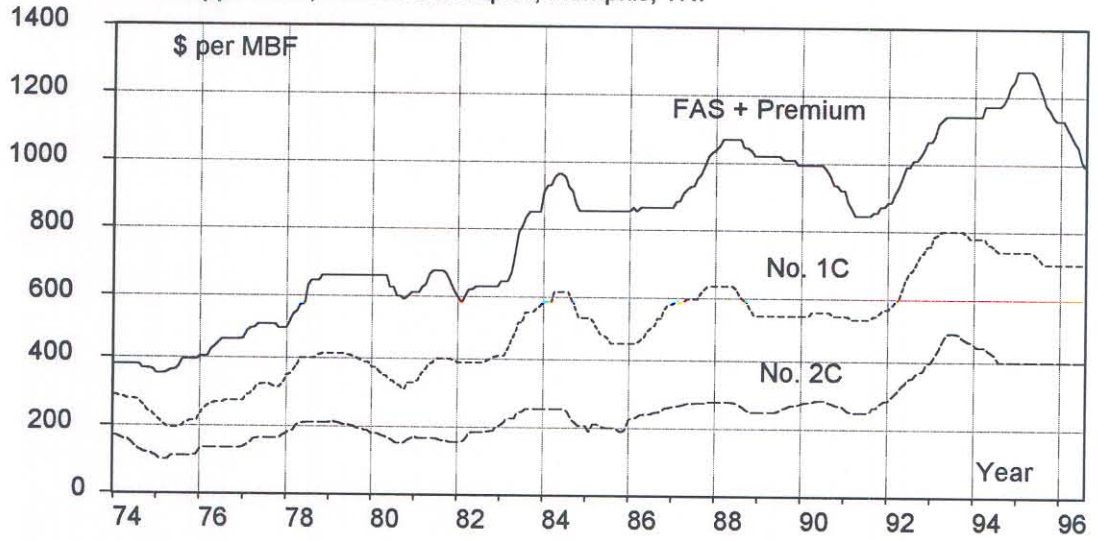


Figure 12. Tulip poplar lumber prices, monthly, 1974 to August 1996,
4/4 Applachian, Hdwd. Mkt. Report, Memphis, TN.

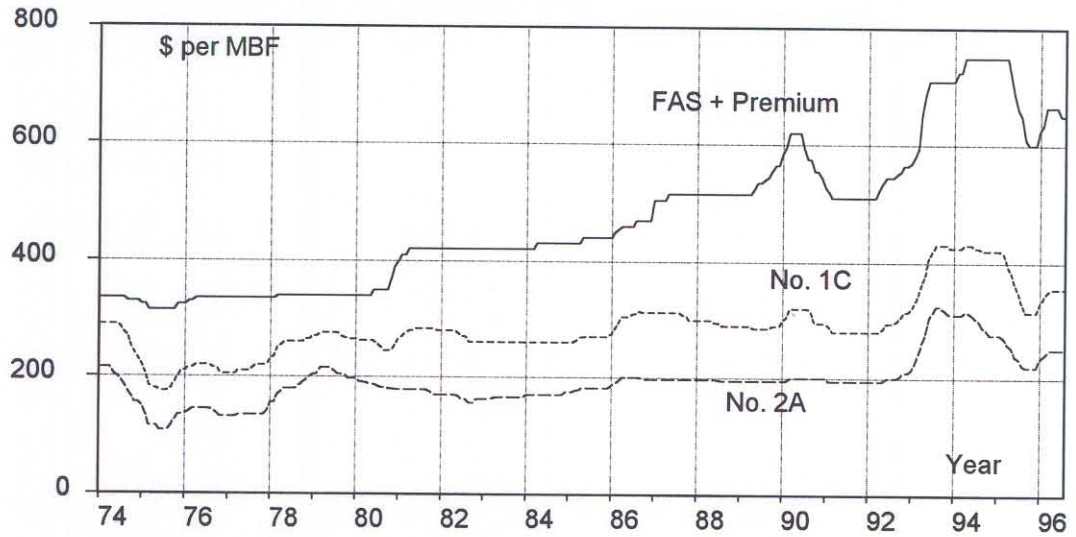


Figure 13. Sycamore lumber prices, monthly, 1974 to August 1996,
4/4 Applachian, Hwd. Mkt. Report, Memphis, TN.

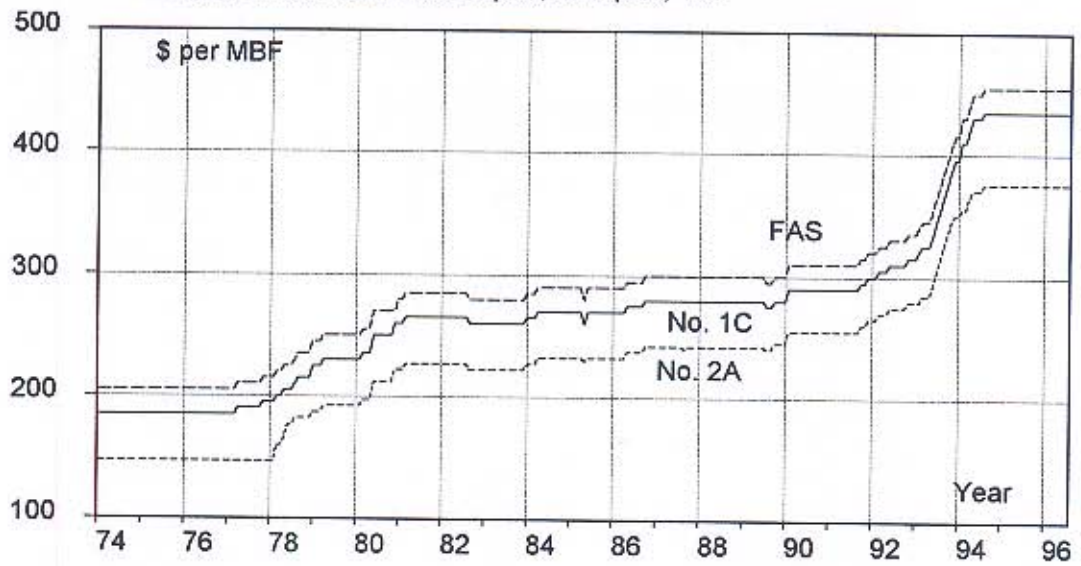


Figure 14. Black walnut lumber prices, monthly, 1974 to August 1996,
4/4 Applachian, Hwd. Mkt. Report, Memphis, TN.

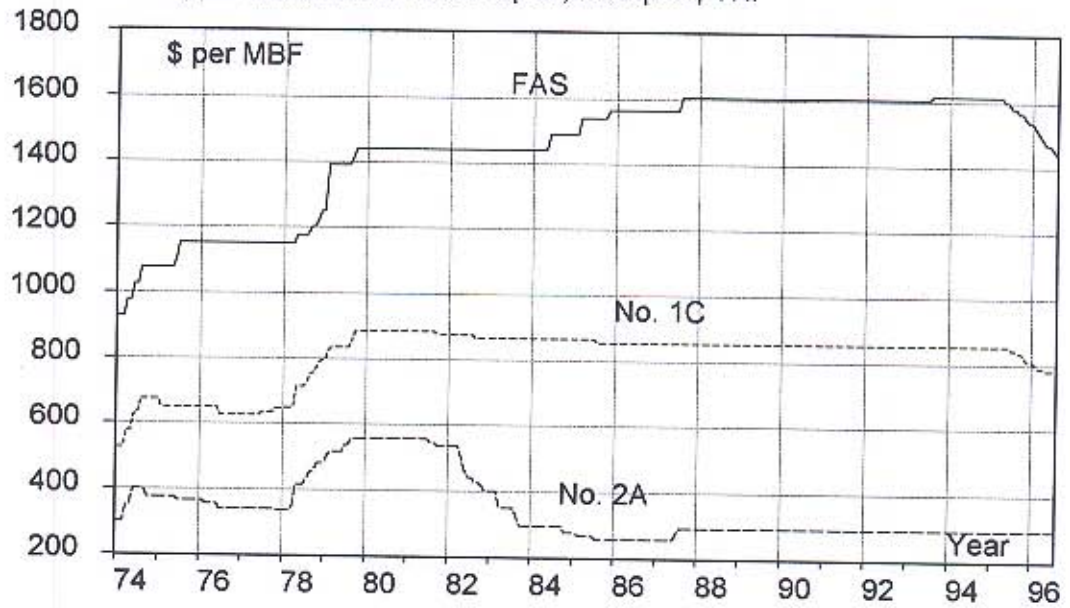


Figure 15. Producer price index for finished goods,
U.S. Dept. Commerce, 1957 to 1996.

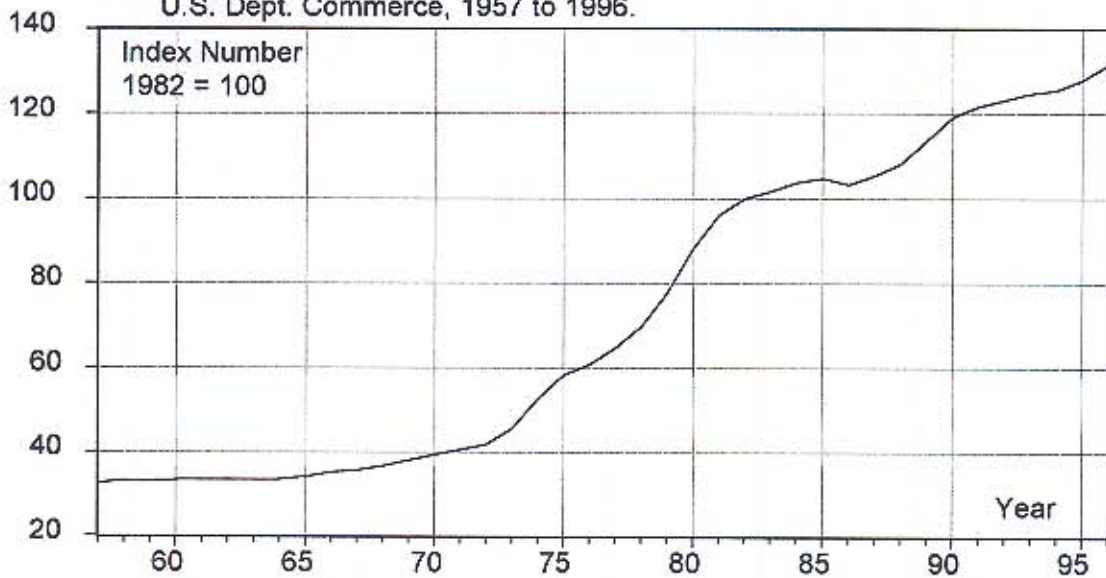


Figure 16. Average stand, nominal, real, and trend line price, 1957 to 1996

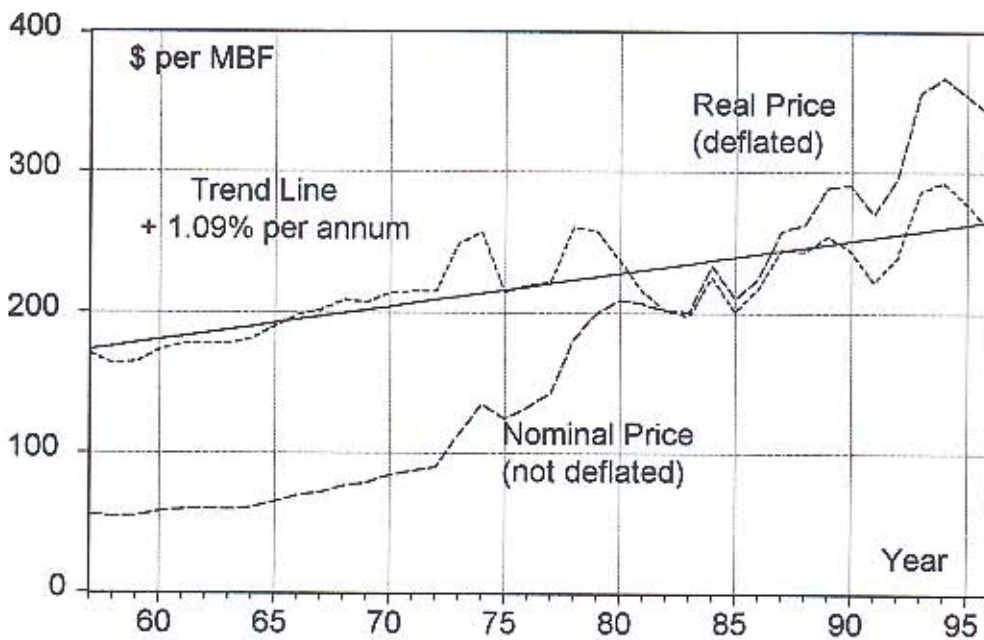


Figure 17. Quality stand, nominal, real, and trend line price, 1957 to 1996

