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Department of
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Bulletin of Hardwood Market Statistics: 1996

Forest Service

**Northeastern Forest
Experiment Station**

Research Note NE-363

Jean W. Nolley



Abstract

Provides current and historical information on primary and secondary hardwood products, production, prices, international trade, and employment.

Introduction

Data contained in this bulletin are intended to provide a general overview of recent trends in the hardwood market for use by hardwood-related industries, forest managers, the academic community, and the general public. The statistics presented in this bulletin are not inclusive. Specific series were selected on the basis of their availability and completeness, and were derived from a variety of sources. Questions about data collection procedures should be directed to the issuing agency or organization.

The import and export data for hardwood logs, lumber, veneer, and plywood reported here are reproduced in their entirety as received from the U.S. Department of Commerce, Bureau of the Census. Reporting errors have occurred in the

past due to coding and computing program errors and changes in tariff systems. For information on these errors, see Luppold (1995). Readers interested in export and import data are encouraged to reference additional sources when evaluating international trade statistics. For additional information on the international trade series presented here, please contact Bruce Hansen at 304-431-2739.

Readers interested in price data for specific subregions of the domestic hardwood market are encouraged to contact state forestry officials for information on local market conditions.

Your input is critical in helping us make this bulletin more useful. We welcome comments or suggestions on additional data series to include or different breakdowns of the data currently reported. Copies of this bulletin are free upon request. Send your comments and requests to Jean W. Nolley at the address below.

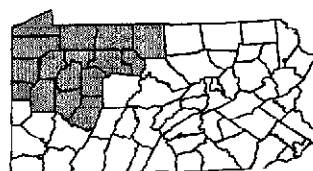
JEAN W. NOLLEY is a member of the hardwood demand analysis unit at the Northeastern Forest Experiment Station, Forestry Sciences Laboratory, 241 Mercer Springs Road, Princeton, WV 24740.

Tables Included in This Series of Reports and Frequency of Update

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Hardwood Stumpage, Log, and Lumber Prices		
1	Average hardwood stumpage prices in northwestern Pennsylvania, 1991-96	Quarterly
2	Average hardwood stumpage prices in Missouri, statewide, 1991-96	Quarterly
3	Average hardwood stumpage prices in Maine, statewide, 1991-95	Yearly
4	Average hardwood stumpage prices in the northern and delta and river regions of Mississippi, 1991-96	Bi-monthly
5	Average hardwood stumpage prices in Ohio, statewide, 1991-96	Bi-annual
6	Average hardwood mill prices of grade 1 logs in northwestern Pennsylvania, 1991-96	Quarterly
7	Average hardwood mill prices of grade 1 logs in Missouri, statewide, 1991-96	Quarterly
8	Average hardwood mill prices of grade 1 logs in eastern Tennessee, 1991-96	Quarterly
9	Average hardwood mill prices in the northern and delta and river regions of Mississippi, 1991-96	Bi-monthly
10	Average hardwood mill prices of red oak logs in Ohio, statewide, 1991-96	Bi-annual
11	Air-dried hardwood lumber prices, 1991-96	Quarterly
12	Kiln-dried hardwood lumber prices, 1991-96	Monthly
Hardwood Product Prices, Production, and Employment		
13	Producer price indexes for selected wood industries, 1991-96	Quarterly
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HARDWOOD STUMPAGE, LOG, AND LUMBER PRICES

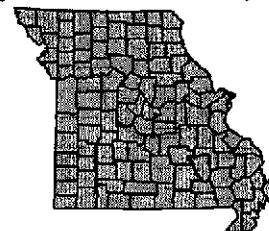
Table 1.—Average hardwood stumpage prices in northwestern Pennsylvania, 1991-96
(Dollars/Mbf, International 1/4" scale)



Year/quarter	Red oak	White oak	Black cherry	Hard maple	Soft maple	Yellow-poplar
1991	282	162	416	85	64	63
1992	351	187	544	123	76	60
1993	479	235	748	194	114	93
1994	519	243	891	221	136	119
1995/1	472	248	842	224	135	163
1995/2	509	234	828	194	137	103
1995/3	513	236	875	172	110	122
1995/4	503	209	707	170	110	125
1995 avg.	499	232	813	190	123	128
1996/1	468	230	786	187	97	110
1996/2	494	227	747	191	105	94
1996/3	503	245	809	186	109	117
1996/4	483	206	817	217	130	125
1996 avg.	487	227	790	195	110	112

Source: Cooperative Extension Service, U.S. Department of Agriculture, The Pennsylvania State University.

Table 2.—Average hardwood stumpage prices in Missouri, statewide, 1991-96
(Dollars/Mbf, International 1/4" scale)

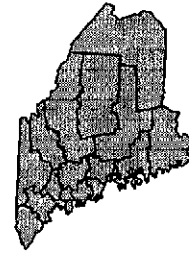


Year/quarter	Red oak	White oak	Ash	Hard maple	Soft maple	Mixed hardwoods
1991	95	102	39	NA	48	51
1992	99	109	96	NA	71	62
1993	116	113	140	75	67	76
1994	154	144	158	50	90	104
1995/1	166	157	179	50	184	118
1995/2	103	92	70	NA	72	94
1995/3	195	124	180	NA	NA	100
1995/4	235	195	85	245	110	65
1995 avg.	175	142	129	NA	NA	94
1996/1	130	125	65	NA	45	65
1996/2	135	135	115	NA	50	145
1996/3	150	135	65	NA	NA	150
1996/4	170	210	495	NA	NA	95
1996 avg.	146	151	185	NA	NA	114

NA - Not available.

Source: Missouri Department of Conservation, Forestry Division.

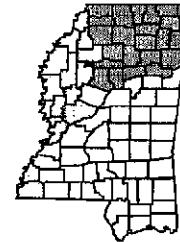
Table 3.--Average hardwood stumpage prices in Maine, statewide, 1991-95
(Dollars/Mbf, International 1/4" scale)



Year	Oak	Yellow birch	White ash	Hard maple	Soft maple
1991	207	82	123	88	33
1992	162	71	109	72	45
1993	176	73	121	91	54
1994	219	96	118	103	53
1995	241	99	126	115	56

Source: Management and Utilization Division, Maine Forest Service.

Table 4.--Average hardwood stumpage prices in the northern and delta and river regions of Mississippi, 1991-96
(Dollars/Mbf, Doyle scale)



Year	North		Delta and River	
	Oak	Mixed hardwoods	Oak	Mixed hardwoods
1991	135	93	174	87
1992	154	101	197	84
1993	218	126	323	124
1994	214	138	306	128
1995:				
Jan-Feb	232	154	293	142
Mar-Apr	211	139	306	131
May-Jun	220	132	284	128
Jul-Aug	227	135	296	132
Sep-Oct	232	148	291	143
Nov-Dec	195	149	280	149
1995 average	220	143	292	138
1996:				
Jan-Feb	230	146	353	176
Mar-Apr	236	141	316	114
May-Jun	201	149	327	104
Jul-Aug	209	144	320	111
Sep-Oct	253	155	290	128
Nov-Dec	223	147	294	135
1996 average	225	147	317	128

Source: Cooperative Extension Service, Mississippi State University, Mississippi State.

**Table 5.--Average hardwood stumpage prices in Ohio,
statewide, 1991-96**
(Dollars/Mbf, Doyle scale)

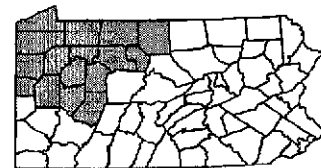


Year/season	White oak	Red oak	Cherry	Yellow-poplar
1991/spring	242	248	247	118
1991/fall	225	230	248	114
1992/spring	NA	NA	NA	NA
1992/fall	299	324	376	161
1993/spring	303	341	402	209
1993/fall	318	419	552	207
1994/spring	324	374	442	213
1994/fall	347	443	636	225
1995/spring	340	415	525	210
1995/fall	295	350	410	180
1996/spring	310	350	425	170
1996/fall	395	420	585	190

NA - Not available.

Source: Ohio Agricultural Statistics Service, Columbus, OH.

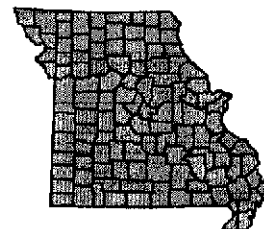
**Table 6.--Average hardwood mill prices of grade 1 logs in
northwestern Pennsylvania, 1991-96**
(Dollars/Mbf, International 1/4" scale)



Year/quarter	Red oak	White oak	Black cherry	Hard maple	Soft maple	Yellow-poplar
1991	379	285	424	174	149	143
1992	455	321	527	228	176	158
1993	490	334	629	356	219	172
1994	555	483	710	352	232	756
1995/1	575	352	751	352	211	164
1995/2	575	411	751	338	176	164
1995/3	575	376	763	354	210	200
1995/4	514	326	669	326	175	167
1995 avg.	560	366	734	343	193	174
1996/1	506	317	634	321	189	229
1996/2	535	440	634	325	212	180
1996/3	510	401	725	375	206	216
1996/4	465	322	624	352	214	153
1996 avg.	504	370	654	343	205	195

Source: Cooperative Extension Service, U.S. Department of Agriculture, The Pennsylvania State University.

Table 7.--Average hardwood mill prices of grade 1 logs in Missouri, statewide, 1991-96
(Dollars/Mbf, International 1/4" scale)



Year/quarter	Red oak	White oak	Cherry	Ash	Soft maple	Black walnut
1991	267	274	317	207	182	531
1992	297	285	319	277	162	509
1993	NA	NA	NA	NA	NA	NA
1994	362	332	422	295	252	543
1995/1	382	335	322	308	279	550
1995/2	327	268	361	263	205	699
1995/3	380	336	534	313	232	688
1995/4	360	320	315	250	185	500
1995 avg.	362	315	383	284	225	609
1996/1	370	310	285	240	255	565
1996/2	360	330	400	255	235	415
1996/3	350	330	485	285	230	570
1996/4	280	290	420	230	295	385
1996 avg.	340	315	398	253	254	484

NA - Not available.

Source: Missouri Department of Conservation, Forestry Division.

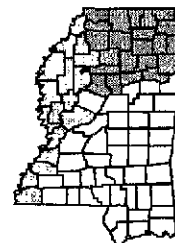
Table 8.--Average hardwood mill prices of grade 1 logs in eastern Tennessee, 1991-96
(Dollars/Mbf, Doyle scale)



Year/quarter	Red Oak	White oak	Walnut	Ash	Hard maple	Yellow-poplar
1991	519	550	400	500	200	250
1992	588	563	400	500	200	250
1993	725	669	450	525	325	288
1994	775	700	500	563	375	338
1995/1	775	700	500	600	400	375
1995/2	775	700	500	600	350	375
1995/3	775	700	500	600	350	375
1995/4	775	700	500	550	350	325
1995 avg.	775	700	500	588	363	363
1996/1	713	638	500	550	350	325
1996/2	713	638	500	550	350	325
1996/3	713	638	500	550	350	325
1996/4	712	638	500	550	350	325
1996 avg.	713	638	500	550	350	325

Source: The Tennessee Division of Forestry, Utilization Section.

Table 9.--Average hardwood mill prices in the northern and delta and river regions of Mississippi, 1991-96
(Dollars/Mbf, Doyle scale)



Year	North		Delta and River	
	Oak	Mixed hardwoods	Oak	Mixed hardwoods
1991	NA	187	239	156
1992	247	198	281	169
1993	329	232	372	203
1994	314	224	392	188
1995:				
Jan-Feb	310	221	439	194
Mar-Apr	315	225	448	242
May-Jun	305	208	397	209
Jul-Aug	300	205	395	210
Sep-Oct	305	210	391	177
Nov-Dec	300	205	414	250
1995 avg.	306	212	414	214
1996:				
Jan-Feb	305	210	415	234
Mar-Apr	NA	216	417	202
May-Jun	289	218	400	200
Jul-Aug	298	215	425	204
Sep-Oct	301	220	406	218
Nov-Dec	312	221	400	220
1996 avg.	NA	217	411	213

NA - Not available.

Source: Cooperative Extension Service, Mississippi State University.

Table 10.--Average hardwood mill prices of red oak logs in Ohio, statewide, 1991-1996
(Dollars/Mbf, Doyle scale)



Year/season	Average all grades	Grade 1 16 inches	Grade 1	Grade 2	Grade 3
1991/spring	321	558	333	198	115
1991/fall	330	620	418	251	120
1992/spring	NA	NA	NA	NA	NA
1992/fall	428	725	496	273	146
1993/spring	459	753	494	267	139
1993/fall	488	788	524	296	154
1994/spring	460	731	461	284	150
1994/fall	472	884	546	305	157
1995/spring	450	800	510	290	125
1995/fall	475	780	470	280	130
1996/spring	425	690	460	255	135
1996/fall	520	855	540	295	140

NA - Not available.

Source: Ohio Agricultural Statistics Service, Columbus, OH.

Table 11.--Air-dried hardwood lumber prices, 1991-96
(Dollars/Mbf)

Year/quarter	4/4 Appalachian red oak 1C	4/4 Poplar 1C	4/4 Cherry 1C	4/4 Northern hard maple 1C	4/4 Northern soft maple 1C
1991	530	284	620	400	335
1992	638	290	674	501	356
1993	789	384	960	725	475
1994	800	425	1040	731	561
1995/1	740	420	1040	705	545
1995/2	740	395	1040	705	545
1995/3	725	350	975	695	515
1995/4	705	315	860	690	490
1995 avg.	728	370	979	699	524
1996/1	705	325	845	690	490
1996/2	705	355	845	690	490
1996/3	705	355	845	690	490
1996/4	705	360	845	720	500
1996 avg.	705	349	845	698	493

Source: By permission from the Hardwood Market Report, Memphis, TN.

Table 12.--Kiln-dried hardwood lumber prices, 1991-96
(Dollars/Mbf)

Year/quarter	4/4 Appalachian red oak 1C	4/4 Poplar 1C	4/4 Cherry 1C	4/4 Northern hard maple 1C	4/4 Northern soft maple 1C
1991	744	362	695	569	NA
1992	876	432	803	694	NA
1993	1043	579	1457	987	NA
1994	1043	579	1457	987	775
1995/1	965-1115	520-570	1335-1475	940-1030	730-780
1995/2	930-1080	480-530	1240-1380	900-990	705-755
1995/3	875-1025	450-500	1110-1250	900-990	685-735
1995/4	890-1040	450-500	1060-1200	1110-1190	655-705
1995 avg.	957	515	1315	958	719
1996/1	880-1030	455-505	1020-1160	935-960	655-705
1996/2	900-1005	465-515	960-1100	960-980	655-705
1996/3	920-1025	475-525	995-1135	980	675-725
1996/4	940-1045	515-565	1045-1185	980-1050	690-740
1996 avg.	976	495	1071	977	686

NA - Not available.

Source: Weekly Hardwood Review, Charlotte, NC.

HARDWOOD PRODUCT PRICES, PRODUCTION, AND EMPLOYMENT

Table 13.—Producer price indexes for selected wood industries, 1991-96
(1982=100)

Year/ quarter	Hardwood lumber	Hardwood dimension	Wood kitchen cabinets	Wood household furniture	Upholstered wood household furniture	Wood office furniture	All commodities
1991	128.5	140.9	125.2	135.4	124.9	135.9	116.5
1992	140.7	145.5	129.2	138.7	125.9	138.3	117.2
1993	163.3	162.1	135.1	143.9	128.9	141.3	118.9
1994	168.3	170.2	140.7	150.2	134.3	145.6	120.4
1995/1	169.9	174.4	144.1	153.8	135.5	147.6	123.4
1995/2	168.1	174.6	146.3	155.1	136.3	149.1	124.9
1995/3	166.0	173.7	147.4	155.7	137.5	150.3	125.2
1995/4	164.2	172.5	148.0	156.3	138.6	151.4	125.5
1995 avg.	167.0	173.8	146.5	155.2	137.0	149.6	124.7
1996/1	164.0	172.0	149.7	157.3	139.4	152.3	126.3
1996/2	163.4	173.1	150.4	158.1	139.8	153.2	127.8
1996/3	163.2	173.5	150.6	158.7	140.1	153.8	128.2
1996/4	165.1	173.9	150.8	159.8	140.6	154.8	128.3
1996 avg.	163.9	173.1	150.4	158.3	140.0	153.5	127.7

Source: Producer Price Indexes, U.S. Department of Labor, Bureau of Labor Statistics.

Table 14.—Value of domestic wood furniture shipments and wood furniture imports, 1991-96
(Millions of dollars)

Year	Value of ¹ domestic wood furniture shipments (actual \$)	Value of ² domestic wood furniture shipments (1982 \$)	Value of ³ wood furniture imports (actual \$, c.i.f.)	Value of wood ² furniture imports (1982 \$, c.i.f.)	Ratio of ⁴ imports to domestic production
1991	7980	5894	2713	2004	.34
1992	8838r	6299r	2884	2079	.33
1993	9267r	6440r	3380	2349	.36
1994	9919r	6603r	4050	2696	.41
1995	10019r	6456r	4451	2868	.44
1996	NA	NA	4970	3140	NA

NA - Not available.

r - revised figure.

¹ Source: U.S. Department of Commerce, International Trade Administration.

² Deflated by wood household furniture price index listed in Table 13.

³ Source: U.S. Department of Commerce, Bureau of the Census.

⁴ Developed from columns 1 and 3.

**Table 15.--Production of oak strip flooring,
1991-96**

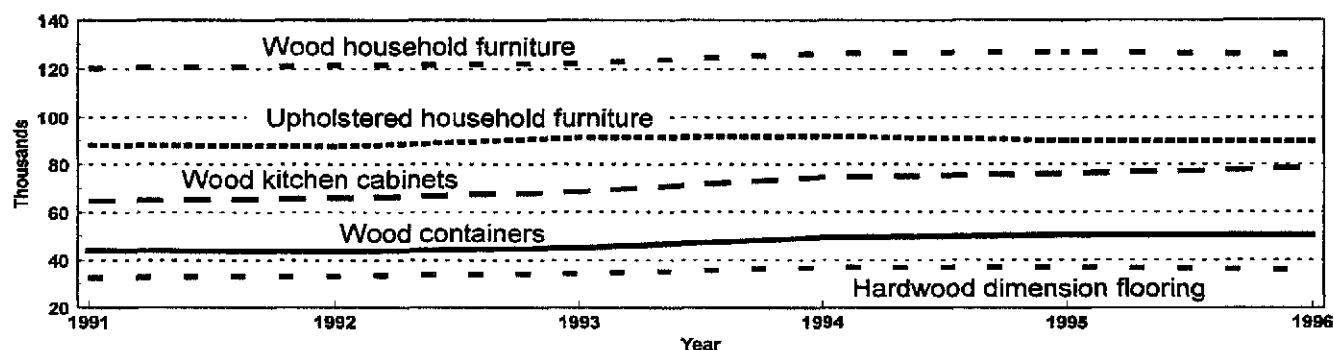
Year	Oak strip flooring (M feet)
1991	199,734
1992	222,573
1993	265,858
1994	307,689
1995	330,212
1996	367,465

Source: National Oak Flooring Manufacturers Association statistics.

**Table 16.--Employment in selected wood-using industries, 1991-96
(Thousands)**

Year/quarter	Wood containers (SIC 244)	Upholstered household furniture (SIC 2512)	Wood household furniture (SIC 2511)	Wood kitchen cabinets (SIC 2434)	Hardwood dimension and flooring (SIC 2426)
1991	44.0	88.2	120.2	64.6	32.6
1992	43.5	87.5	121.2	65.7	33.3
1993	45.2	91.3	122.4	68.6	34.5
1994	49.3	91.7	127.3	74.7	36.7
1995/1	50.4	91.4	129.5	75.6	38.8
1995/2	50.8	90.1	127.3	76.2	37.4
1995/3	50.5	88.3	123.5	76.3	36.4
1995/4	50.3	90.3	127.3	75.8	36.5
1995 avg.	50.5	90.0	126.9	76.0	37.0
1996/1	49.8	89.7	126.7	75.9	36.0
1996/2	50.3	89.7	125.9	78.7	36.1
1996/3	50.8	88.5	125.0	79.7	35.6
1996/4	50.6	90.0	126.4	79.8	35.9
1996 avg.	50.4	89.4	126.0	78.5	35.9

Source: U.S. Department of Labor.



Employment in selected wood-using industries, 1991-1996.

INTERNATIONAL HARDWOOD PRODUCT TRADE

Table 17.—International exchange rate, foreign currency per U.S. dollar, 1991-1996

Year/qtr.	Belgium (franc)	Canada (dollar)	China (yuan)	France (franc)	Germany (mark)	Hong Kong (H.K. \$)	Indonesia (rupiah)	Italy (lira)
1991	34.148	1.1457	5.3234	5.6421	1.6595	7.7712	1950.32	1240.6
1992	32.149	1.2087	5.5146	5.2938	1.5616	7.7406	2029.92	1232.4
1993	34.597	1.2901	5.7620	5.6633	1.6533	7.7356	2087.10	1573.7
1994	33.456	1.3656	8.6187	5.5520	1.6228	7.7284	2160.67	1612.4
1995/1	30.493	1.4089	8.000	5.1688	1.4803	7.7360	2209.48	1639.6
1995/2	28.705	1.3713	8.000	4.9177	1.3962	7.7347	2231.86	1668.2
1995/3	29.441	1.3555	8.000	4.9490	1.4322	7.7390	2261.79	1610.1
1995/4	29.280	1.3560	8.000	4.9304	1.4238	7.7337	2291.31	1600.7
1995 avg.	29.480	1.3724	8.000	4.9915	1.4331	7.7358	2248.61	1629.6
1996/1	30.186	1.3691	8.320	5.0351	1.4685	7.7323	2318.17	1573.2
1996/2	31.283	1.3645	8.328	5.1581	1.5223	7.7363	2344.08	1555.3
1996/3	30.843	1.3700	8.309	5.0939	1.4979	7.7350	2350.33	1521.2
1996/4	31.534	1.3503	8.299	5.1750	1.5305	7.7333	2346.68	1522.2
1996 avg.	30.962	1.3635	8.314	5.1155	1.5048	7.7343	2339.82	1543.0

Year/qtr.	Japan (yen)	Malaysia (ringgit)	Mexico (peso)	Singapore (S.dollar)	So.Korea (won)	Spain (pesetas)	Turkey (liras)	U.K. (pound)
1991	134.71	2.7501	3.02	1.7276	733.35	103.91	4171.82	0.567
1992	126.65	2.5474	3.09	1.6290	780.65	102.38	6872.42	0.570
1993	111.20	2.5741	3.12	1.6158	802.67	127.26	NA	0.667
1994	102.21	2.6242	3.38	1.5274	803.44	133.96	NA	0.653
1995/1	96.26	2.5517	5.97	1.4422	786.70	130.55	41049.9	0.632
1995/2	84.43	2.4638	6.16	1.3957	763.33	123.07	42821.4	0.626
1995/3	94.09	2.4647	6.21	1.4145	765.77	122.87	46352.7	0.636
1995/4	101.46	2.5375	7.34	1.4171	769.30	122.26	53156.2	0.641
1995 avg.	94.06	2.5044	6.42	1.4174	771.27	124.69	45845.1	0.634
1996/1	105.79	2.5480	7.53	1.4144	782.93	123.70	64399	0.653
1996/2	107.59	2.5012	7.48	1.4084	786.18	127.51	76499	0.656
1996/3	108.94	2.4952	7.56	1.4121	817.11	126.57	85587	0.643
1996/4	112.79	2.5186	7.84	1.4052	831.58	128.87	99136	0.611
1996 avg.	108.78	2.5158	7.60	1.4100	804.45	126.66	81405	0.641

NA - Not available.

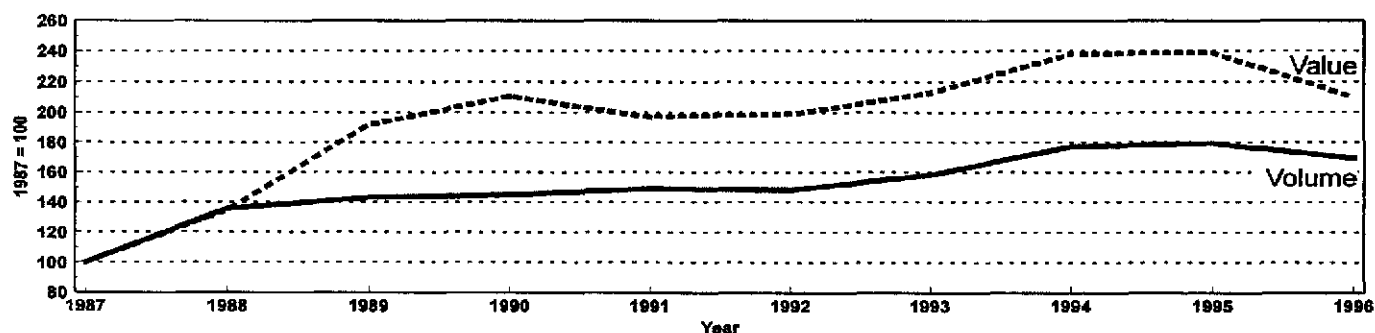
Source: International Monetary Fund.

Table 18.--Volume and value of U.S. hardwood log exports, by region, 1991-96
(Cubic meters and thousands of dollars, f.a.s.)

Year/qtr.	Canada		Central & South America and Caribbean		Western Europe	
	Volume	Value	Volume	Value	Volume	Value
1991	416,893	53,930	17,142	4,201	230,866	78,635
1992	522,481	62,713	16,405	5,727	193,992	82,005
1993	616,313	73,627	11,884	5,082	160,865	72,603
1994	710,078	89,685	18,546	6,686	209,276	88,937
1995/1	213,648	29,222	2,614	1,136	60,761	26,840
1995/2	189,164	29,924	2,480	1,084	64,847	26,490
1995/3	184,461	20,805	2,354	1,015	18,734	8,140
1995/4	181,842	22,868	2,476	1,015	31,331	15,547
Total 1995	769,115	98,818	9,924	4,249	175,673	77,016
1996/1	184,952	25,354	1,823	766	45,568	18,868
1996/2	138,631	17,393	2,872	1,056	39,148	15,403
1996/3	170,411	19,016	3,122	1,127	15,363	6,225
1996/4	237,964	25,089	3,080	1,070	39,188	16,919
Total 1996	731,598	86,852	10,897	4,022	139,267	57,415

Year/qtr.	Asia		All other		Total	
	Volume	Value	Volume	Value	Volume	Value
1991	335,091	94,533	5,245	16,888	1,005,237	232,986
1992	240,269	83,666	30,489	17,455	1,003,636	235,858
1993	278,393	99,937	3,132	10,066	1,070,587	252,253
1994	250,545	94,285	5,573	2,225	1,194,018	281,819
1995/1	84,465	33,551	775	297	362,263	91,048
1995/2	94,190	39,620	266	83	350,947	93,198
1995/3	26,472	9,170	530	136	232,551	39,263
1995/4	49,268	19,039	556	185	265,473	58,652
Total 1995	254,395	101,376	2,127	701	1,211,234	282,159
1996/1	83,234	32,423	206	111	315,783	77,518
1996/2	90,430	34,326	239	60	271,320	68,234
1996/3	33,726	9,576	277	115	222,899	36,060
1996/4	56,356	23,469	37	15	336,625	66,562
Total 1996	263,746	99,784	759	301	1,146,627	248,373

Source: U.S. Department of Commerce, Bureau of the Census.



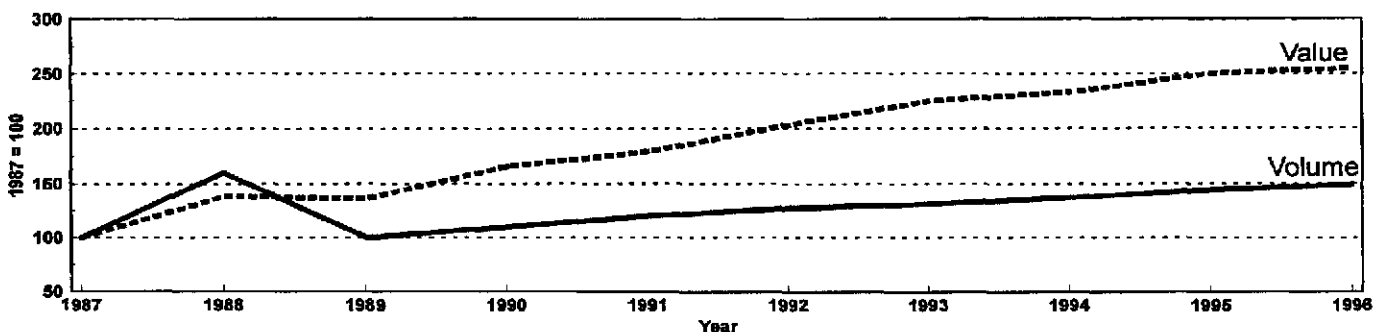
Volume and value index of all U.S. hardwood log exports, 1987-1996.

Table 19.--Volume and value of U.S. hardwood lumber exports, by region, 1991-96
(Cubic meters and thousands of dollars, f.a.s.)

Year/qtr.	Canada		Central & South America and Caribbean		Western Europe	
	Volume	Value	Volume	Value	Volume	Value
1991	465,152	166,462	106,483	33,082	771,827	368,731
1992	602,457	195,976	129,753	43,497	801,865	431,696
1993	702,640	236,565	124,624	49,493	726,776	429,784
1994	762,734	253,617	141,505	55,540	745,828	436,218
1995/1	226,982	76,699	47,830	14,008	187,323	114,474
1995/2	216,167	70,713	31,248	13,060	218,736	135,470
1995/3	174,232	54,511	45,018	17,999	160,279	101,631
1995/4	175,490	55,613	37,945	15,510	172,288	106,829
Total 1995	792,871	257,536	162,041	60,576	738,626	458,409
1996/1	201,230	65,356	42,804	16,738	197,868	124,920
1996/2	207,408	64,905	49,187	19,129	182,951	115,847
1996/3	192,757	60,723	48,543	18,293	158,558	101,589
1996/4	225,026	70,990	48,801	18,667	190,547	118,630
Total 1996	826,421	261,974	189,335	72,827	729,924	460,988

Year/qtr.	Asia		All other		Total	
	Volume	Value	Volume	Value	Volume	Value
1991	651,148	257,188	56,856	24,500	2,051,466	849,963
1992	583,845	266,199	51,019	26,022	2,168,939	963,388
1993	641,792	322,400	51,095	28,518	2,246,927	1,066,755
1994	640,686	333,592	51,023	28,694	2,341,776	1,107,659
1995/1	171,962	90,043	13,573	7,611	647,670	302,836
1995/2	193,295	102,470	13,597	6,997	673,043	328,709
1995/3	180,869	96,757	16,257	8,241	576,655	279,139
1995/4	169,449	90,934	13,700	7,244	568,872	276,129
Total 1995	715,575	380,197	57,127	30,089	2,466,240	1,186,811
1996/1	168,314	86,089	18,210	9,432	628,426	302,539
1996/2	196,007	101,145	18,085	9,404	653,638	310,433
1996/3	186,279	94,994	16,028	8,452	602,165	284,051
1996/4	186,254	95,614	13,218	7,829	663,846	311,731
Total 1996	736,854	377,847	65,541	35,119	2,548,075	1,208,754

Source: U.S. Department of Commerce, Bureau of the Census.



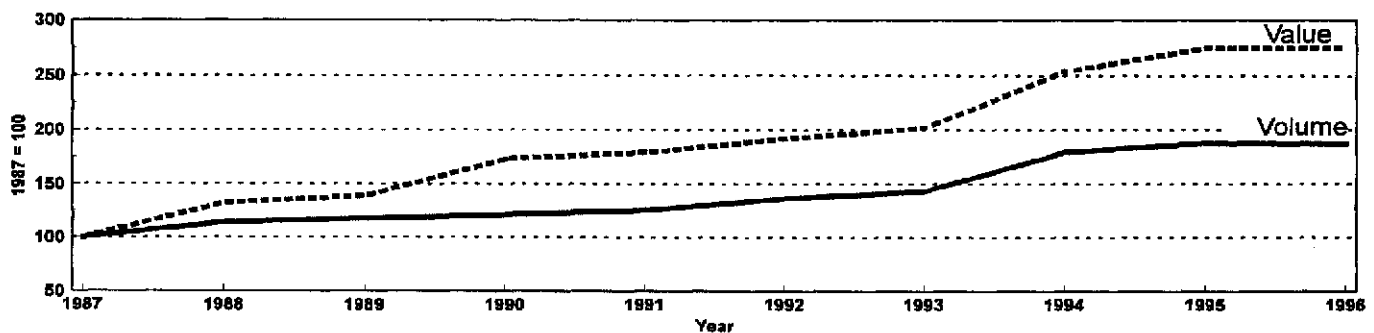
Volume and value index of all U.S. hardwood lumber exports, 1987-1996.

Table 20.--Volume and value of U.S. hardwood veneer exports, by region, 1991-96
(Million square meters and thousands of dollars, f.a.s.)

Year/qtr.	Canada		Central & South America and Caribbean		Western Europe	
	Volume	Value	Volume	Value	Volume	Value
1991	15.5	19,751	3.5	4,915	107.6	128,815
1992	20.8	23,626	4.4	6,410	116.2	140,176
1993	25.0	28,719	9.0	12,312	106.7	129,095
1994	31.5	41,836	9.2	11,674	128.8	160,231
1995/1	10.0	11,636	1.2	1,691	32.9	42,609
1995/2	8.6	10,513	2.5	3,281	40.3	52,186
1995/3	7.3	10,024	2.4	3,118	30.5	38,492
1995/4	7.7	10,231	3.1	3,966	37.8	49,450
Total 1995	33.6	42,405	9.1	12,053	141.4	182,733
1996/1	9.0	12,567	2.2	2,911	38.8	49,109
1996/2	10.2	14,521	1.9	2,504	38.5	48,987
1996/3	9.8	12,999	1.8	2,589	28.3	34,160
1996/4	11.3	14,927	2.0	2,722	34.9	43,165
Total 1996	40.3	55,014	7.9	10,722	140.5	175,426

Year/qtr.	Asia		All other		Total	
	Volume	Value	Volume	Value	Volume	Value
1991	28.9	41,458	4.7	5,319	160.3	200,262
1992	27.9	38,264	5.7	6,974	175.1	215,449
1993	37.3	48,175	5.8	7,296	183.7	225,595
1994	53.0	61,390	7.8	9,289	230.2	284,423
1995/1	12.6	14,924	3.2	3,931	59.8	74,784
1995/2	12.0	14,871	2.7	3,289	66.1	84,138
1995/3	10.7	12,997	2.8	3,232	53.7	67,863
1995/4	10.5	13,905	2.6	3,414	61.7	80,963
Total 1995	45.7	56,694	11.3	13,864	241.2	307,749
1996/1	9.3	11,554	2.6	3,451	61.9	79,594
1996/2	10.3	13,444	1.8	2,265	62.7	81,721
1996/3	10.5	14,169	2.8	3,393	53.2	67,315
1996/4	11.6	15,321	2.7	3,241	62.4	79,377
Total 1996	41.7	54,490	9.8	12,353	240.2	308,008

Source: U.S. Department of Commerce, Bureau of the Census.



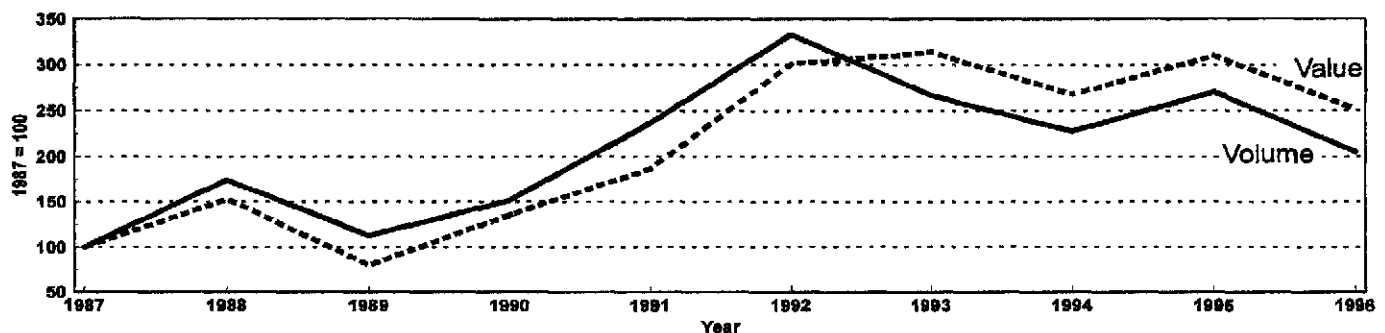
Volume and value index of all U.S. hardwood veneer exports, 1987-1996.

Table 21.--Volume and value of U.S. hardwood plywood exports, by region, 1991-96
(Cubic meters and thousands of dollars, f.a.s.)

Year/qtr.	Canada		Central & South America and Caribbean		Western Europe	
	Volume	Value	Volume	Value	Volume	Value
1991	51,896	15,200	57,296	9,790	4,099	923
1992	64,046	19,245	73,338	14,301	30,299	8,212
1993	55,747	19,041	31,302	8,172	21,583	8,678
1994	57,720	17,082	38,323	10,780	2,590	2,152
1995/1	16,457	4,938	8,126	2,579	2,114	1,538
1995/2	19,485	5,503	7,050	2,062	2,798	1,874
1995/3	21,981	6,462	6,942	2,146	651	488
1995/4	22,580	6,754	5,918	1,839	0	0
Total 1995	80,503	23,657	28,036	8,623	5,563	3,901
1996/1	20,703	6,429	8,821	2,683	361	369
1996/2	16,749	5,765	6,269	1,880	112	65
1996/3	13,972	5,141	8,003	2,350	153	19
1996/4	17,204	6,610	3,585	1,572	528	160
Total 1996	68,628	23,946	26,678	8,478	1,154	611

Year/qtr.	Asia		All other		Total	
	Volume	Value	Volume	Value	Volume	Value
1991	10,571	962	917	222	124,779	27,097
1992	6,964	1,596	1,102	383	175,749	43,737
1993	31,685	9,369	560	363	140,877	45,621
1994	19,884	8,471	1,415	408	119,932	38,896
1995/1	5,775	2,205	186	56	32,658	11,317
1995/2	3,828	1,732	107	36	33,268	11,205
1995/3	4,642	1,872	35	56	34,251	11,024
1995/4	14,219	2,884	329	110	43,046	11,587
Total 1995	28,464	8,693	657	256	143,223	45,133
1996/1	2,591	1,370	1,032	185	33,508	11,033
1996/2	2,582	423	356	95	26,068	8,231
1996/3	1,559	292	853	128	24,540	7,927
1996/4	2,686	992	148	35	24,151	9,368
Total 1996	9,418	3,078	2,389	442	108,267	36,558

Source: U.S. Department of Commerce, Bureau of the Census.



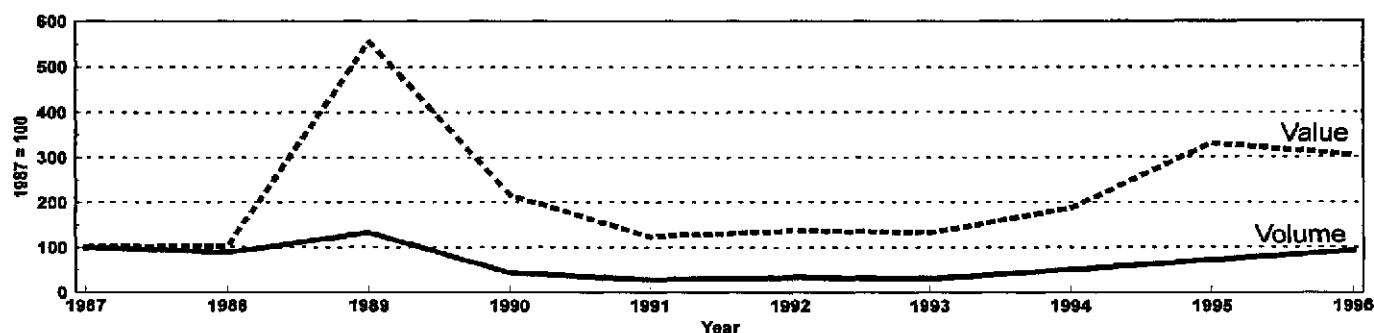
Volume and value index of all U.S. hardwood plywood exports, 1987-1996.

Table 22.--Volume and value of U.S. hardwood log imports, by region, 1991-96
(Cubic meters and thousands of dollars, c.i.f.)

Year/qtr.	Canada		Central & South America and Caribbean		Africa	
	Volume	Value	Volume	Value	Volume	Value
1991	10,275	1,439	1,550	228	1,103	419
1992	16,069	2,242	238	105	1,968	787
1993	14,604	2,143	690	476	1,409	540
1994	26,081	3,947	1,236	505	1,661	567
1995/1	11,627	1,856	0	0	127	85
1995/2	9,288	1,712	60	37	723	282
1995/3	10,918	1,837	0	0	107	46
1995/4	9,080	1,814	286	52	0	0
Total 1995	40,913	7,218	346	89	957	413
1996/1	15,832	2,948	202	73	0	0
1996/2	15,272	2,672	283	48	0	0
1996/3	10,531	2,170	70	33	0	0
1996/4	14,698	2,363	36	4	0	0
Total 1996	56,333	10,153	591	158	0	0

Year/qtr.	Asia and Pacific Ocean		All other		Total	
	Volume	Value	Volume	Value	Volume	Value
1991	3,681	1,940	1,006	486	17,615	4,515
1992	1,987	1,237	1,131	599	21,393	4,970
1993	2,012	1,106	908	573	19,623	4,837
1994	2,377	1,309	588	487	31,943	6,813
1995/1	418	1,096	129	98	12,301	3,136
1995/2	761	1,512	405	300	11,237	3,844
1995/3	272	450	153	94	11,450	2,427
1995/4	367	662	316	80	10,049	2,607
Total 1995	1,818	3,719	1,003	572	45,037	12,014
1996/1	154	84	1,216	241	17,404	3,346
1996/2	129	63	153	147	15,837	2,929
1996/3	0	0	118	137	10,719	2,340
1996/4	0	0	120	102	14,854	2,469
Total 1996	283	147	1,607	627	58,814	11,084

Source: U.S. Department of Commerce, Bureau of the Census.



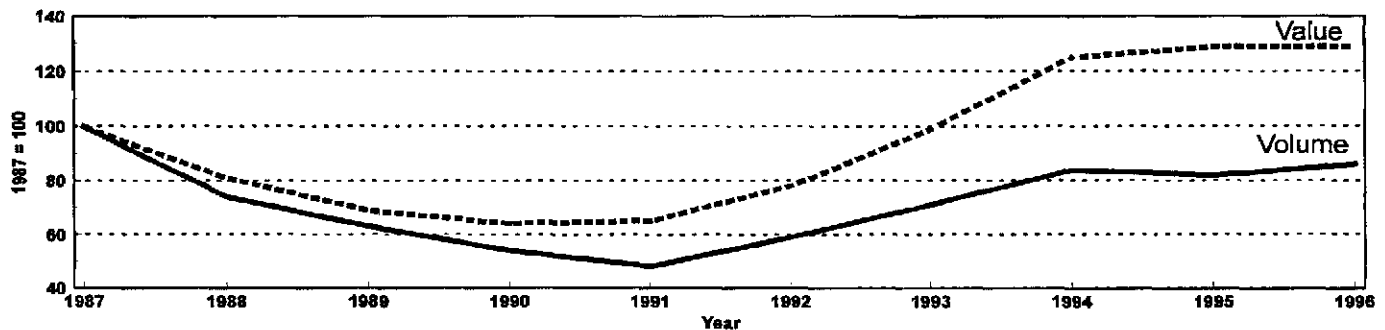
Volume and value index of all U.S. hardwood log imports, 1987-1996.

Table 23.--Volume and value of U.S. hardwood lumber imports, by region, 1991-96
(Cubic meters and thousands of dollars, c.i.f.)

Year/qtr.	Canada		Central & South America and Caribbean		Africa	
	Volume	Value	Volume	Value	Volume	Value
1991	252.5	45,763	182.4	81,589	4.9	2,841
1992	361.5	75,071	181.8	79,136	6.1	3,658
1993	481.2	110,490	185.7	86,367	5.6	3,924
1994	549.3	130,835	220.6	111,143	12.9	5,820
1995/1	127.2	30,444	58.5	31,304	2.8	2,126
1995/2	121.9	29,689	46.1	22,154	3.1	2,448
1995/3	113.5	26,286	60.7	31,490	2.5	1,577
1995/4	133.7	30,703	83.7	48,481	2.7	1,786
Total 1995	496.3	117,122	249.0	133,422	11.1	7,936
1996/1	129.3	32,196	59.6	33,790	2.7	1,901
1996/2	142.4	33,593	49.5	26,879	4.4	2,756
1996/3	128.6	31,324	54.0	28,647	13.4	3,697
1996/4	147.4	35,050	57.3	30,276	6.2	3,571
Total 1996	547.7	132,162	220.4	119,595	26.7	11,927

Year/qtr.	Asia and Pacific Ocean		All other		Total	
	Volume	Value	Volume	Value	Volume	Value
1991	64.4	32,583	6.4	3,253	510.6	166,030
1992	75.0	40,929	3.9	2,051	628.2	200,843
1993	74.6	48,549	7.4	3,790	754.5	253,117
1994	96.0	65,670	12.6	6,177	891.5	319,651
1995/1	24.0	17,595	5.3	1,740	217.7	83,206
1995/2	22.1	16,023	1.3	574	194.5	70,883
1995/3	24.2	16,786	2.7	911	203.6	77,050
1995/4	21.2	17,244	6.0	975	247.3	99,189
Total 1995	91.4	67,649	15.3	4,202	863.0	330,329
1996/1	30.0	17,024	2.4	1,421	224.0	86,333
1996/2	22.6	14,894	7.1	1,112	226.0	79,234
1996/3	25.7	15,530	2.0	972	223.8	80,173
1996/4	21.8	15,052	3.5	1,279	236.2	85,228
Total 1996	100.2	62,501	15.0	4,784	910.0	330,968

Source: U.S. Department of Commerce, Bureau of the Census.



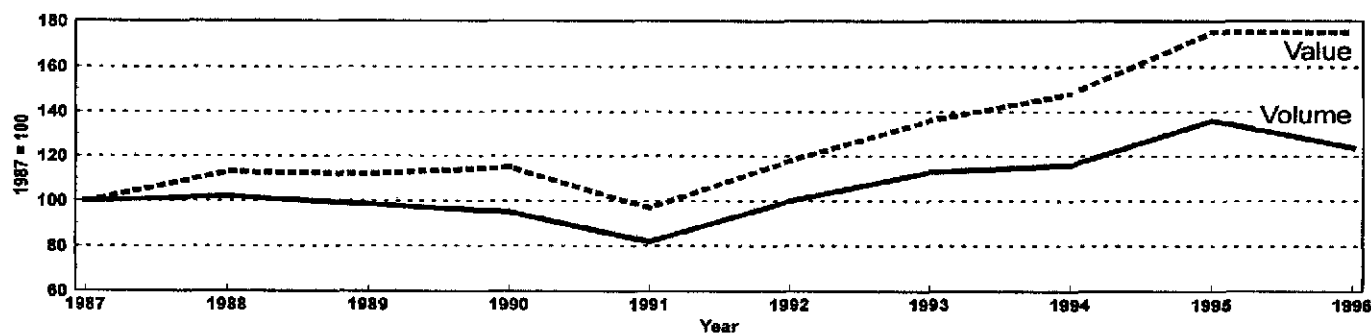
Volume and value index of all U.S. hardwood lumber imports, 1987-1996.

Table 24.--Volume and value of U.S. hardwood veneer imports, by region, 1991-96
(Million square meters and thousands of dollars, c.i.f.)

Year/qtr.	Canada		Central & South America and Caribbean		Africa	
	Volume	Value	Volume	Value	Volume	Value
1991	78.2	81,276	22.5	24,815	2.5	4,844
1992	92.7	100,379	33.9	35,944	2.1	2,322
1993	107.6	111,860	42.1	48,057	3.6	4,677
1994	113.4	129,789	38.5	40,882	3.4	6,346
1995/1	31.0	37,972	8.2	8,881	2.0	2,799
1995/2	28.8	37,502	8.9	10,494	2.8	2,487
1995/3	23.7	32,718	14.4	13,782	2.8	3,971
1995/4	26.7	35,502	21.9	18,375	3.0	3,744
Total 1995	110.2	143,695	53.5	51,534	10.6	13,999
1996/1	27.9	37,954	13.6	12,114	4.8	4,195
1996/2	31.1	42,427	10.8	10,204	3.6	4,512
1996/3	26.0	36,600	11.5	14,595	3.7	4,691
1996/4	25.5	36,325	11.3	13,037	3.8	4,116
Total 1996	110.6	153,306	47.3	49,948	15.9	17,516

Year/qtr.	Asia and Pacific Ocean		All other		Total	
	Volume	Value	Volume	Value	Volume	Value
1991	18.4	16,367	7	198,090	128.6	147,110
1992	19.4	17,438	7.5	231,454	155.6	179,226
1993	14.7	16,509	8.9	25,013	176.9	206,117
1994	11.0	13,797	14.1	33,304	180.8	224,117
1995/1	4.8	5,009	4.6	8,058	50.7	62,716
1995/2	9.6	9,402	3.2	8,218	53.3	69,105
1995/3	2.8	3,102	2.2	6,488	46.0	60,063
1995/4	7.8	7,839	2.7	8,055	62.1	73,515
Total 1995	25.0	25,354	12.8	30,822	212.1	265,399
1996/1	1.9	2,320	2.7	6,710	50.8	63,294
1996/2	2.5	2,673	3.2	9,429	51.3	69,243
1996/3	2.8	3,702	2.0	7,033	46.0	66,622
1996/4	3.1	3,967	2.6	8,371	46.3	65,817
Total 1996	10.3	12,662	10.4	31,544	194.5	264,975

Source: U.S. Department of Commerce, Bureau of the Census.



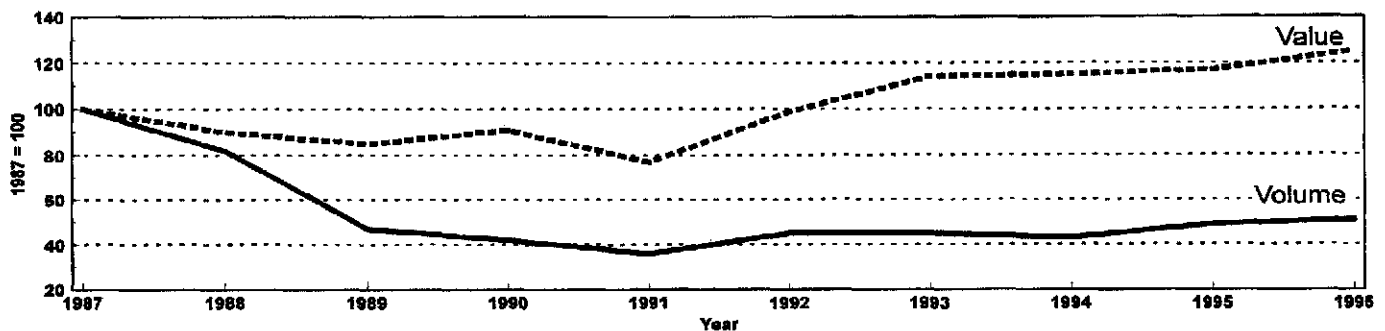
Volume and value index of all U.S. hardwood veneer imports, 1987-1996.

Table 25.--Volume and value of U.S. hardwood plywood imports, by region, 1991-96
(Cubic meters and thousands of dollars, c.i.f.)

Year/qtr.	Canada		Central & South America and Caribbean		Africa	
	Volume	Value	Volume	Value	Volume	Value
1991	88,755	38,121	121,000	43,468	14	9
1992	113,359	48,758	198,026	67,597	34	12
1993	123,456	60,060	298,495	115,885	258	141
1994	156,969	71,209	366,644	140,830	405	196
1995/1	40,016	18,892	82,661	32,764	0	0
1995/2	42,958	20,675	87,954	36,240	0	0
1995/3	43,242	19,947	96,920	39,237	0	0
1995/4	53,471	22,569	94,042	38,941	0	0
Total 1995	179,327	82,083	361,577	147,184	0	0
1996/1	54,201	22,255	77,399	31,607	1,689	627
1996/2	60,127	25,021	86,649	34,175	0	0
1996/3	46,096	21,357	100,005	43,476	0	0
1996/4	54,085	24,563	82,132	36,186	0	0
Total 1996	214,509	93,196	347,185	145,442	1,689	627

Year/qtr.	Asia and Pacific Ocean		All other		Total	
	Volume	Value	Volume	Value	Volume	Value
1991	962,719	397,398	54,824	16,150	1,227,312	495,148
1992	1,174,221	501,774	38,845	19,231	1,524,485	637,374
1993	1,056,320	534,010	55,409	28,393	1,533,938	738,487
1994	833,992	493,756	89,245	39,568	1,447,255	745,561
1995/1	278,358	128,312	21,078	9,982	42,113	189,950
1995/2	258,962	118,783	26,697	13,683	416,211	189,381
1995/3	210,876	106,054	51,697	15,206	402,735	180,448
1995/4	243,884	120,183	31,652	14,662	423,049	196,354
Total 1995	992,080	473,331	131,124	53,535	1,664,108	756,133
1996/1	184,383	93,659	59,312	14,856	376,984	163,004
1996/2	207,928	104,870	41,066	18,967	396,770	183,033
1996/3	296,791	151,922	44,513	17,086	487,405	233,840
1996/4	312,636	151,231	34,311	14,020	483,164	226,003
Total 1996	1,001,738	501,683	179,202	64,933	1,744,323	805,879

Source: U.S. Department of Commerce, Bureau of the Census.

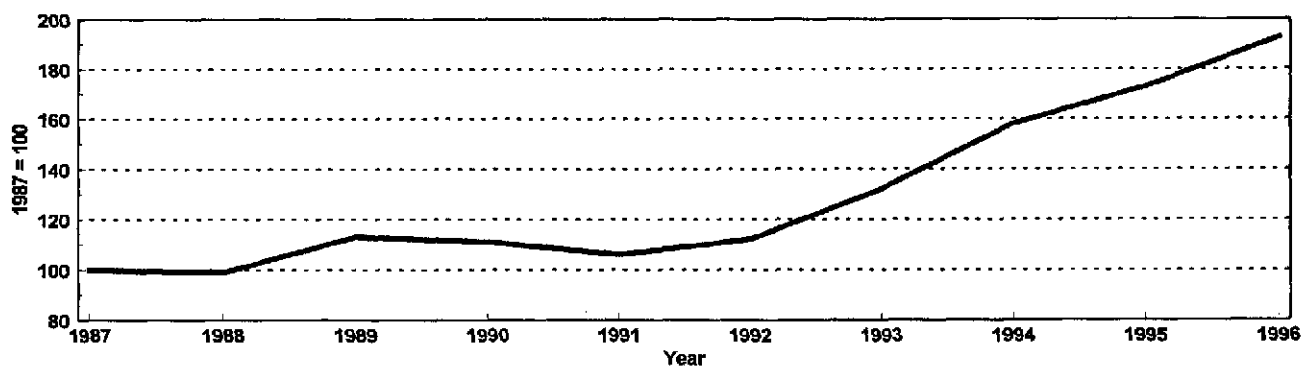


Volume and value index of all U.S. hardwood plywood imports, 1987-1996.

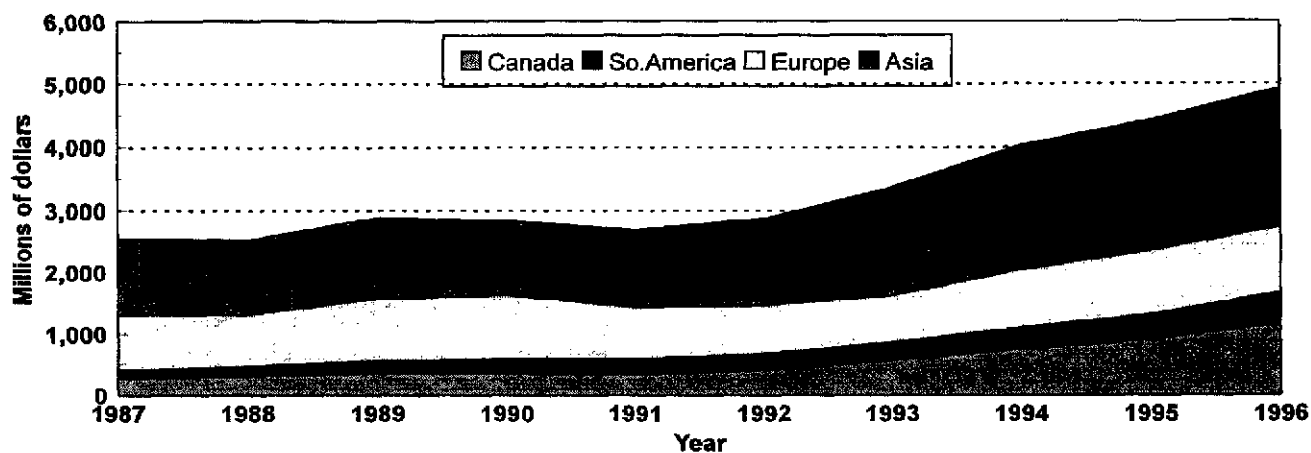
Table 26.--Value of U.S. wood furniture imports, by region, 1991-96
(Thousands of dollars, c.i.f.)

Year/qtr.	Canada	Caribbean, South, and Central America	Europe	Asia, Middle east, and Pacific	All other	Total
1991	346,139	256,841	833,211	1,271,590	4,811	2,712,594
1992	412,880	269,361	784,314	1,412,052	5,740	2,884,347
1993	563,326	301,397	755,104	1,751,680	9,488	3,380,993
1994	753,590	347,697	941,112	1,993,394	14,546	4,050,338
1995/1	195,002	92,206	246,945	494,190	3,677	1,032,018
1995/2	213,062	100,497	272,254	493,587	4,106	1,083,503
1995/3	236,988	104,215	255,200	536,295	4,064	1,136,758
1995/4	254,298	114,811	268,546	556,318	4,754	1,198,726
Total 1995	899,350	411,731	1,042,945	2,080,382	16,600	4,451,004
1996/1	234,964	110,438	257,609	505,236	4,732	1,112,978
1996/2	266,208	124,172	261,309	505,915	6,368	1,163,970
1996/3	319,196	129,138	275,510	581,003	7,647	1,312,497
1996/4	339,356	143,918	279,990	607,602	9,346	1,380,209
Total 1996	1,159,725	507,665	1,074,415	2,199,756	28,093	4,969,654

Source: U.S. Department of Commerce, Bureau of the Census.



Value index of U.S. furniture imports, 1987-1996.



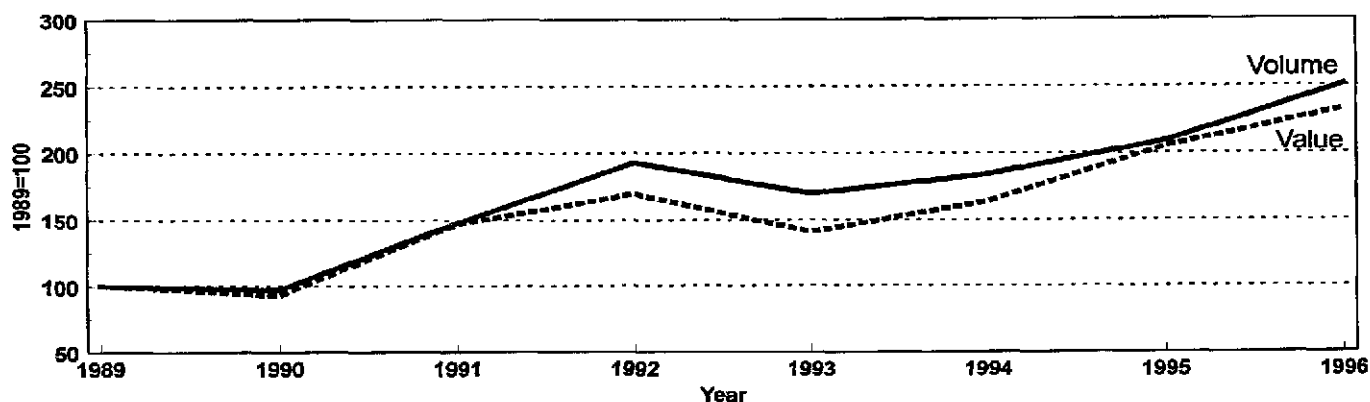
Value of U.S. furniture imports, by region, 1987-1996.

Table 27.--Volume and value of U.S. exports of nonconiferous chips, by region, 1991-96
(Tons and thousands of dollars, f.a.s.)

Year/qtr.	Western Europe		Canada		Japan		Mexico	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value
1991	334	20	107,632	4,225	2,178,574	214,233	0	0
1992	1,519	110	148,519	6,256	2,565,423	234,189	18,120	1,224
1993	23,023	1,943	170,143	6,676	2,454,629	199,244	87	6
1994	728	923	248,845	9,562	2,649,198	230,564	1,442	60
1995/1	NA	998	75,051	2,848	531,593	46,714	0	0
1995/2	NA	23	78,912	3,547	606,420	64,233	18	20
1995/3	NA	99	74,230	3,226	907,433	94,452	0	0
1995/4	NA	99	55,933	2,385	986,039	94,266	0	0
Total 1995	NA	1,218	284,126	12,007	3,031,485	299,663	18	20
1996/1	1	7	60,045	2,465	958,518	82,074	34	14
1996/2	143	46	40,336	1,682	1,126,312	103,917	0	0
1996/3	167	50	59,354	2,405	935,338	79,041	1	4
1996/4	1	3	50,585	2,089	825,416	79,867	0	0
Total 1996	312	106	210,320	8,641	3,845,584	344,898	35	18

Year/qtr.	Taiwan		South Korea		All other		Total	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value
1991	190,600	14,141	63,756	4,621	1,738	105	2,542,634	237,345
1992	326,060	13,221	235,992	20,237	2,984	333	3,298,617	275,568
1993	22	26	254,808	18,867	4,432	2,129	2,907,144	228,892
1994	0	0	248,635	23,763	1,824	177	3,150,672	265,050
1995/1	0	0	69,696	5,598	1,052	113	677,786	56,270
1995/2	0	0	48,381	2,607	73	9	733,870	70,439
1995/3	0	0	44,975	3,273	1,544	1,080	1,028,617	102,218
1995/4	0	0	93,410	5,916	2,415	105	1,139,125	102,770
Total 1995	0	0	256,462	17,394	5,084	1,305	3,579,398	331,607
1996/1	0	0	106,274	9,342	216	39	1,125,088	93,940
1996/2	0	0	0	0	920	66	1,167,711	105,711
1996/3	21,525	2,153	17,787	1,809	722	68	1,034,894	85,528
1996/4	39,743	3,974	51,986	6,448	6,187	158	973,918	92,538
Total 1996	61,268	6,127	176,047	17,599	8,045	331	4,301,611	377,718

Source: U.S. Department of Commerce, Bureau of the Census.



Volume and value index of all U.S. exports of nonconiferous chips, 1989-1996.

Definition of Terms

c.i.f. (Cost, Insurance, Freight) - The term is used for shipment to designated overseas port of import. The seller quotes a price for the goods, including insurance, all transportation, and miscellaneous charges to the point of debarkation from vessel or aircraft.

f.a.s. (Free Alongside a Ship at designated U.S. port of export) - The seller quotes a price that includes charges for delivery of the goods alongside a vessel at the port. The seller handles the cost of unloading and wharfage. Loading, ocean transportation, and insurance are the buyer's responsibility.

Useful Conversion Factors

1 MBF (lumber) = 2.36 cubic meters
1 MBF* (logs - FAO) = 4.53 cubic meters
1 MBF** (logs - Doyle scale) = 4.59 cubic meters
1 MBF** (logs - International 1/4" rule) = 3.48 cubic meters
1 MBF** (logs - Scribner) = 3.90 cubic meters
1 cubic meter = 35.32 cubic feet
1 ton = 2000 lbs.
1 metric ton = 2204.623 lbs.

* Factor used by the Food and Agricultural Organization of the United Nations.

** Approximation based on 16-foot log with a 15-inch diameter at the top end inside bark. Actual conversion will depend on the distribution of logs under consideration.

Literature Cited

Luppold, William G. 1995. Causes and remedies for errors in international forest products trade data: Examples from the hardwood trade statistics. *Forest Science*. 41(2): 278-283.

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USDA FOREST SERVICE
5 RADNOR CORP CTR SUITE 200
RADNOR PA 19087-4585

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