United States
Department of
Agriculture

Forest Service

**Northeastern
Research Station**

Research Note NE-382

Bulletin of Hardwood Market Statistics: First Half 2003

David Emanuel
Carol Rhodes

Abstract

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

Introduction

Data contained in this bulletin provide a general overview of recent trends in the hardwood market for use by hardwood-related industries, forest managers, the academic community, and the 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 reported import and export data for hardwood logs, lumber, veneer, and plywood 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 on request. Send your comments and requests to David M. Emanuel at the address below.

DAVID EMANUEL AND CAROL RHODES are members of the economics of eastern forest use unit at the Northeastern Research Station, Forestry Sciences Laboratory, 241 Mercer Springs Road, Princeton, WV 24740.

Tables in This Report and Frequency of Update

Number	Title	Frequency of update
	Hardwood Stumpage, Log, and Lumber Prices	
1	Average hardwood stumpage prices in northwestern Pennsylvania, 1998-2003	Quarterly
2	Average hardwood stumpage prices in Missouri, statewide, 1998-2003	Quarterly
3	Average hardwood stumpage prices in Maine, statewide, 1997-2002	Yearly
4	Average hardwood stumpage prices in the northern and delta and river regions of Mississippi, 1998-2003	Bimonthly
5	Average hardwood stumpage prices in Ohio, statewide, 1998-2003	Biannual
6	Average hardwood mill prices of grade 1 logs in northwestern Pennsylvania, 1998-2003	Quarterly
7	Average hardwood mill prices of grade 1 logs in Missouri, statewide, 1998-2003	Quarterly
8	Average hardwood mill prices of grade 1 logs in eastern Tennessee, 1998-2003	Quarterly
9	Average hardwood mill prices in the northern and delta and river regions of Mississippi, 1998-2003	Bimonthly
10	Average hardwood mill prices of red oak logs in Ohio, statewide, 1998-2003	Biannual
11	Green hardwood lumber prices, 1998-2003	Quarterly
12	Kiln-dried hardwood lumber prices, 1998-2003	Quarterly
	Hardwood Product Prices, Production, and Employment	
13	Producer price indexes for selected wood industries, 1998-2003	Quarterly
14	Value of nonupholstered wood household furniture shipments and nonupholstered wood household furniture imports, 1997-2002	Yearly
15	Production of oak strip flooring, 1997-2002	Yearly
16	Employment in selected wood-using industries, 1998-2003	Quarterly
	International Hardwood Product Trade	
17	International exchange rate, foreign currency per U.S. dollar, 1998-2003	Quarterly
18	Volume and value of U.S. hardwood log exports, by region, 1998-2003	Quarterly
19	Volume and value of U.S. hardwood lumber exports, by region, 1998-2003	Quarterly
20	Volume and value of U.S. hardwood veneer exports, by region, 1998-2003	Quarterly
21	Volume and value of U.S. hardwood plywood exports, by region, 1998-2003	Quarterly
22	Volume and value of U.S. hardwood log imports, by region, 1998-2003	Quarterly
23	Volume and value of U.S. hardwood lumber imports, by region, 1998-2003	Quarterly
24	Volume and value of U.S. hardwood veneer imports, by region, 1998-2003	Quarterly
25	Volume and value of U.S. hardwood plywood imports, by region, 1998-2003	Quarterly
26	Value of U.S. wood furniture imports, by region, 1998-2003	Quarterly
27	Volume and value of U.S. exports of nonconiferous chips, by region, 1998-2003	Quarterly

HARDWOOD STUMPAGE, LOG, AND LUMBER PRICES

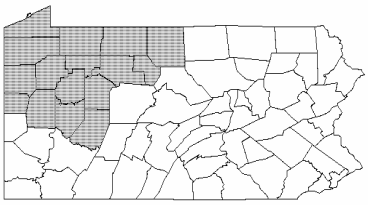


Table 1.--Average hardwood stumpage prices in northwestern Pennsylvania, 1998-2003
(Dollars/Mbf, International 1/4" scale)

Year/quarter	Red Oak	White oak	Black cherry	Hard maple	Soft maple	Yellow-poplar
1998	520	216	1,103	303	175	116
1999	504	217	1,347	313	182	133
2000	578	248	1,583	393	206	157
2001	475	182	1,393	367	183	128
2002/1	439	135	1,374	345	192	111
2002/2	536	175	1,474	362	166	128
2002/3	527	181	1,312	397	190	136
2002/4	460	137	1,336	399	162	102
2002 avg.	490	157	1,374	376	177	119
2003/1	492	178	1,416	369	177	110
2003/2	555	185	1,639	402	195	111
2003/3	---	---	---	---	---	---
2003/4	---	---	---	---	---	---
2003 avg.	---	---	---	---	---	---

Source: The Pennsylvania State University, School of Forest Resources, Cooperative Extension.

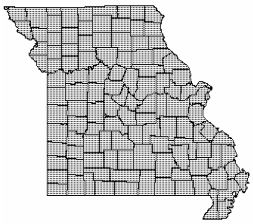


Table 2.--Average hardwood stumpage prices in Missouri, statewide, 1998-2003
(Dollars/Mbf, International 1/4" scale)

Year/quarter	Red oak	White oak	Ash	Hard maple	Soft maple	Mixed hardwoods
1998	190	175	NA	NA	NA	136
1999	171	220	130	NA	201	147
2000	194	185	NA	NA	NA	130
2001	174	176	94	NA	207	136
2002/1	185	160	80	100	170	55
2002/2	180	150	NA	NA	NA	135
2002/3	185	155	50	NA	125	115
2002/4	190	170	140	200	245	155
2002 avg.	185	159	NA	NA	NA	115
2003/1	180	145	65	NA	150	115
2003/2	175	155	NA	NA	125	115
2003/3	---	---	---	---	---	---
2003/4	---	---	---	---	---	---
2003 avg.	---	---	---	---	---	---

NA = Not available.
Source: Missouri Department of Conservation, Forestry Division.

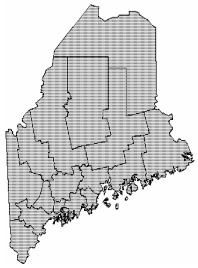


Table 3.--Average hardwood stumpage prices in Maine, statewide, 1997-2002
(Dollars/Mbf, International 1/4" scale)

Year	Red Oak	Yellow birch	White ash	Hard maple	Soft Maple
1997	254	113	126	159	77
1998	246	120	123	157	83
1999	224	119	129	157	85
2000	245	122	127	187	80
2001	218	129	118	198	77
2002	230	125	111	168	78

Source: Maine Forest Service, Management and Utilization Division.

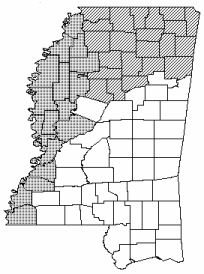
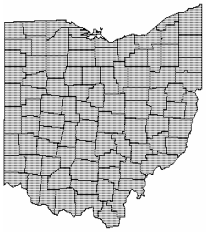


Table 4.--Average hardwood stumpage prices in the northern and delta and river regions of Mississippi, 1998-2003
(Dollars/Mbf, Doyle scale)

Year	North		Delta and River	
	Oak	Mixed hardwoods	Oak	Mixed hardwoods
1998	301	191	368	154
1999	296	183	369	159
2000	285	169	348	168
2001	306	164	347	134
2002				
Jan-Feb	333	165	398	150
Mar-Apr	NA	NA	NA	NA
May-Jun	290	152	362	155
Jul-Aug	285	140	345	150
Sep-Oct	300	160	359	109
Nov-Dec	319	181	345	141
2002 avg.	NA	NA	NA	NA
2003				
Jan-Feb	321	172	335	144
Mar-Apr	NA	NA	NA	NA
May-Jun	348	170	396	156
Jul-Aug	---	---	---	---
Sep-Oct	---	---	---	---
Nov-Dec	---	---	---	---
2003 avg.	---	---	---	---

NA = Not available.
Source: Mississippi State University, Extension Service.

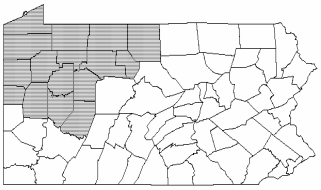
Table 5.--Average hardwood stumpage prices in Ohio, statewide, 1998-2003
(Dollars/Mbf, Doyle scale)



Year/season	White oak	Red oak	Cherry	Yellow-poplar
1998/spring	305	335	470	195
1998/fall	340	485	690	210
1999/spring	340	435	665	205
1999/fall	330	440	640	225
2000/spring	370	430	690	235
2000/fall	345	445	815	225
2001/spring	325	445	690	170
2001/fall	NA	NA	NA	NA
2002/spring	NA	NA	NA	NA
2002/fall	NA	NA	NA	NA
2003/spring	359	454	704	226
2003/fall	---	---	---	---

NA = Not available.
Source: Ohio Department of Natural Resources-Forestry, Columbus.

Table 6.--Average hardwood mill prices of grade 1 logs in northwestern Pennsylvania, 1998-2003
(Dollars/Mbf, International 1/4" scale)



Year/quarter	Red oak	White Oak	Black cherry	Hard maple	Soft maple	Yellow-poplar
1998	597	320	966	458	313	198
1999	509	289	923	422	256	162
2000	560	318	1,152	543	286	207
2001	487	259	1,035	523	264	172
2002/1	407	253	832	378	204	103
2002/2	496	280	1,068	510	289	150
2002/3	543	291	1,134	575	317	216
2002/4	511	270	1,062	497	272	182
2002 avg.	489	273	1,024	490	270	163
2003/1	592	317	1,107	432	271	164
2003/2	487	288	1,018	457	280	162
2003/3	---	---	---	---	---	---
2003/4	---	---	---	---	---	---
2003 avg.	---	---	---	---	---	---

Source: The Pennsylvania State University, School of Forest Resources, Cooperative Extension.

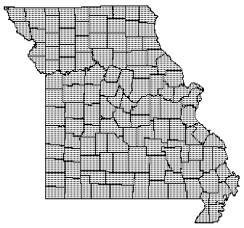


Table 7.--Average hardwood mill prices of grade 1 logs in Missouri, statewide, 1998-2003
(Dollars/Mbf, International 1/4" scale)

Year/quarter	Red oak	White oak	Cherry	Ash	Soft maple	Black walnut
1998	401	350	419	316	340	440
1999	422	394	634	366	435	471
2000	409	316	501	283	360	415
2001	457	365	744	302	379	516
2002/1	485	375	710	325	355	695
2002/2	405	390	1,105	340	470	865
2002/3	425	325	435	290	360	555
2002/4	370	625	415	415	280	1,245
2002 avg.	421	429	666	342	366	840
2003/1	435	425	500	265	500	1,200
2003/2	NA	NA	NA	NA	NA	NA
2003/3	---	---	---	---	---	---
2003/4	---	---	---	---	---	---
2003 avg.	---	---	---	---	---	---

NA = Not available
Source: Missouri Department of Conservation, Forestry Division.

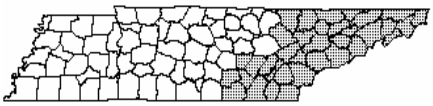


Table 8.--Average hardwood mill prices of grade 1 logs in eastern Tennessee, 1998-2003
(Dollars/Mbf, Doyle scale)

Year/quarter	Red oak	White oak	Walnut	Ash	Hard maple	Yellow-poplar
1998	732	669	500	550	419	362
1999	725	619	500	487	437	356
2000	875	675	500	550	550	447
2001	847	614	587	490	506	389
2002/1	850	585	675	431	462	340
2002/2	812	560	700	400	425	350
2002/3	775	522	650	400	425	327
2002/4	800	548	650	400	425	309
2002 avg.	809	554	669	408	434	331
2003/1	800	548	650	400	425	341
2003/2	888	650	675	538	663	410
2003/3	---	---	---	---	---	---
2003/4	---	---	---	---	---	---
2003 avg.	---	---	---	---	---	---

Source: Tennessee Division of Forestry, Utilization Section.

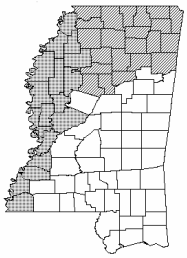


Table 9.--Average hardwood mill prices in the northern and delta and river regions of Mississippi, 1998-2003
(Dollars/Mbf, Doyle scale)

	North		Delta and River	
Year	Oak	Mixed hardwoods	Oak	Mixed hardwoods
1998	380	262	430	239
1999	374	249	434	241
2000	364	259	429	255
2001	373	256	429	233
2002				
Jan-Feb	377	270	425	252
Mar-Apr	NA	NA	NA	NA
May-Jun	377	260	435	262
Jul-Aug	370	252	430	250
Sep-Oct	353	255	440	230
Nov-Dec	380	256	445	242
2002 avg.	NA	NA	NA	NA
2003				
Jan-Feb	385	262	435	249
Mar-Apr	NA	NA	NA	NA
May-Jun	388	271	446	270
Jul-Aug	---	---	---	---
Sep-Oct	---	---	---	---
Nov-Dec	---	---	---	---
2003 avg.	---	---	---	---

NA = Not available.
Source: Mississippi State University, Extension Service.

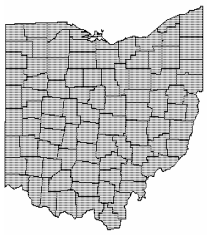


Table 10.--Average hardwood mill prices of red oak logs in Ohio, statewide, 1996-2001
(Dollars/Mbf, Doyle scale)

Year/season	Average all grades	Grade 1 16 inches	Grade 1	Grade 2	Grade 3
1998/spring	470	740	420	275	165
1998/fall	500	800	515	315	160
1999/spring	460	805	540	275	145
1999/fall	510	855	615	305	155
2000/spring	465	860	455	285	130
2000/fall	540	960	580	335	160
2001/spring	560	825	595	385	165
2001/fall	NA	NA	NA	NA	NA
2002/spring	NA	NA	NA	NA	NA
2002/fall	NA	NA	NA	NA	NA
2003/spring	497	847	538	318	167
2003/fall	---	---	---	---	---

NA = Not available.
Source: Ohio Department of Natural Resources-Forestry, Columbus.

Table 11.--Green hardwood lumber prices, 1998-2003
(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
1998	775	405	1,043	860	610
1999	776	387	1,135	872	569
2000	780	458	1,125	983	633
2001	735	395	1,074	994	618
2002/1	710	380	1,060	1,005	585
2002/2	710	395	1,115	1,005	575
2002/3	710	405	1,170	1,005	575
2002/4	740	405	1,185	1,005	595
2002 avg.	717	396	1,132	1,005	582
2003/1	790	410	1,345	1,005	605
2003/2	800	415	1,400	1,005	615
2003/3	---	---	---	---	---
2003/4	---	---	---	---	---
2003 avg.	---	---	---	---	---

Source: Hardwood Market Report, Memphis, TN.

Table 12.--Kiln-dried hardwood lumber prices, 1998-2003
(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
1998	1,061	541	1,394	1,136	798
1999	1,066	514	1,610	1,199	762
2000	1,064	600	1,637	1,435	851
2001	999	535	1,432	1,324	816
2002/1	865-1,035	490-550	1,305-1,465	1,180-1,300	765-845
2002/2	895-1,080	510-580	1,355-1,515	1,170-1,290	760-840
2002/3	920-1,095	530-600	1,400-1,560	1,120-1,240	755-835
2002/4	925-1,100	535-605	1,445-1,605	1,160-1,280	765-845
2002 avg.	979	539	1,429	1,225	807
2003/1	985-1,155	545-615	1,590-1,750	1,215-1,335	810-890
2003/2	1,000-1,155	510-580	1,670-1,830	1,215-1,335	835-915
2003/3	---	---	---	---	---
2003/4	---	---	---	---	---
2003 avg.	---	---	---	---	---

Source: Weekly Hardwood Review, Charlotte, NC.

Table 13.--Producer Price Indexes for selected wood industries, 1998-2003
(1982=100)

Year/ Quarter	Hardwood Lumber	Hardwood dimension	Wood kitchen cabinets	Wood household furniture	Upholstered wood household furniture	Wood office furniture	All commodities
1998	178.7	180.9	156.9	164.0	143.5	164.2	124.4
1999	177.3	183.0	159.7	167.5	145.2	167.3	125.5
2000	185.9	188.8	164.2	170.4	147.6	171.1	132.7
2001	181.3	190.0	167.2	173.5	149.4	174.1	134.2
2002/1	177.1	188.2	168.3	175.4	150.6	174.9	128.9
2002/2	177.2	188.2	169.5	177.1	150.8	174.4	130.8
2002/3	178.4	188.6	170.1	177.9	151.1	174.9	131.7
2002/4	180.3	189.2	171.0	178.3	151.7	176.2	133.1
2002 avg.	178.3	188.5	169.7	177.2	151.1	175.1	131.1
2003/1	183.2	190.2	172.1	178.7	152.0	177.3	138.0
2003/2	188.8p	190.0p	174.6p	179.2p	152.1p	178.0p	137.2p
2003/3	---	---	---	---	---	---	---
2003/4	---	---	---	---	---	---	---
2003 avg.	---	---	---	---	---	---	---

p = preliminary
Source: U.S. Department of Labor, Bureau of Labor Statistics.

Table 14.--Value of nonupholstered wood household furniture shipments and nonupholstered wood household furniture imports[1]
(Millions of dollars)

Year	Value of Nonupholstered wood household furniture shipments (actual $)[2]	Value of Nonupholstered wood household furniture shipments (1982 $)[3]	Value of nonupholstered wood household furniture imports (actual $, c.i.f.)[4]	Value of nonupholstered wood household furniture imports (1982 $, c.i.f.)[3]	Ratio of imports to shipments[5]
1997	10,300.0	6,409	4,354.7	2,710	.42
1998	11,074.1	6,753	5,193.9	3,167	.47
1999	11,942.3	7,130	6,525.8	3,896	.55
2000	11,397.9	6,689	7,822.1	4,590	.69
2001	10,184.2	5,870	7,818.2	4,506	.77
2002	NA	NA	9,289.7	5,242	NA

[1] Table revised to conform with North American Industry Classification System (NAICS).
[2] Source: U.S. Department of Commerce.
[3] Deflated by wood household furniture price index listed in Table 13.
[4] Source: U.S. Department of Commerce, Bureau of the Census.
[5] Developed from columns 1 and 3.
NA = Not available.

Table 15.--Production of oak strip flooring, 1997-2002
(Thousands of feet)

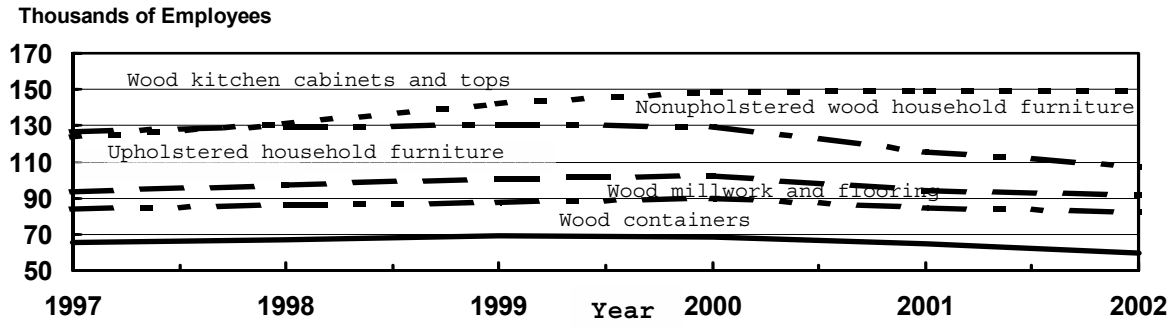
Year	Oak strip flooring
1997	416,618
1998	448,971
1999	536,073
2000	562,885
2001	579,557
2002	627,503

Source: National Oak Flooring Manufacturers Association.

Table 16.--Employment in selected industries, 1998-2003 r
(Thousands of employees)

Year/quarter	Wood containers	Upholstered household furniture	Nonupholstered wood household furniture	Wood kitchen cabinets and countertops	Wood millwork and flooring
1998	66.9	97.0	129.2	130.8	86.2
1999	69.0	101.0	130.4	141.7	87.6
2000	68.4	102.0	129.7	149.0	89.4
2001	64.6	94.0	115.7	149.3	84.6
2002/1	59.8	92.0	108.5	147.4	81.0
2002/2	60.5	92.6	109.1	149.4	81.8
2002/3	60.5	91.3	107.0	150.3	83.6
2002/4	58.3	90.8	103.6	149.8	81.8
2002 avg.	59.8	91.7	107.1	149.3	82.1
2003/1	58.2	89.9	99.1	150.2	79.9
2003/2	59.2	88.1	95.6	152.8	80.0
2003/3	---	---	---	---	---
2003/4	---	---	---	---	---
2003 avg.	---	---	---	---	---

r = revised from Standard Industrial Classification to North American Industrial Classification System.
Source: U.S. Department of Labor.



Employment in selected industries, 1997-2002.

Table 17.--International exchange rate, foreign currency per U.S. dollar, 1998-2003

Year/ quarter	Belgium[1] (franc)	Brazil (real)	Canada (dollar)	China (yuan)	France[1] (franc)	Germany[1] (mark)	Hong Kong (H.K. $)	Italy[1] (lira)
1998	36.301	1.1604	1.4836	8.3006	5.8979	1.7593	7.7466	1,736.4
1999.	37.867	1.8192	1.4858	8.2781	6.1574	1.8359	7.7593	1,817.6
2000	43.808	1.8310	1.4855	8.2784	7.1236	2.1240	7.7924	2,102.8
2001	45.076	2.3531	1.5490	8.2770	7.3299	2.1855	7.7997	2,163.7
2002/1	1.1405	2.3830	1.5946	8.2770	1.1405	1.1405	7.7994	1.1405
2002/2	1.0884	2.5041	1.5545	8.2770	1.0884	1.0884	7.7998	1.0884
2002/3	1.0162	3.1348	1.5637	8.2765	1.0162	1.0162	7.8002	1.0162
2002/4	1.0000	3.6719	1.5696	8.2774	1.0000	1.0000	7.7992	1.0000
2002 avg.	1.0612	2.9235	1.5706	8.2770	1.0612	1.0612	7.7997	1.0612
2003/1	0.9315	3.4966	1.5099	8.2776	0.9315	0.9315	7.7993	0.9315
2003/2	0.8800	2.9831	1.3982	8.2771	0.8800	0.8800	7.7992	0.8800
2003/3	---	---	---	---	---	---	---	---
2003/4	---	---	---	---	---	---	---	---
2003 avg.	---	---	---	---	---	---	---	---

Year/ quarter	Japan (yen)	Malaysia (ringgit)	Mexico (peso)	Singapore (S. dollar)	South Africa (rand)	South Korea (won)	Spain[1] (peseta)	U.K. (pound)
1998	130.82	3.9248	9.15	1.6721	5.5315	1,404.20	149.37	0.604
1999	113.72	3.8000	9.56	1.6947	6.1175	1,189.83	156.18	0.618
2000	107.82	3.8000	9.46	1.7249	6.9470	1,131.38	180.69	0.661
2001	121.52	3.8000	9.34	1.7926	8.6255	1,291.67	185.93	0.695
2002/1	132.46	3.8001	9.11	1.8334	11.5348	1,319.93	1.1405	0.701
2002/2	126.81	3.8000	9.48	1.8040	10.4763	1,266.66	1.0884	0.684
2002/3	119.32	3.8000	9.90	1.7586	10.4292	1,196.37	1.0162	0.645
2002/4	122.47	3.8000	10.17	1.7676	9.6349	1,219.00	1.0000	0.636
2002 avg.	125.27	3.8000	9.66	1.7909	10.5188	1,250.49	1.0612	0.667
2003/1	118.95	3.8000	10.82	1.7455	8.3438	1,201.34	0.9315	0.624
2003/2	118.53	3.8000	10.44	1.7493	7.7275	1,208.82	0.8800	0.618
2003/3	---	---	---	---	---	---	---	---
2003/4	---	---	---	---	---	---	---	---
2003 avg.	---	---	---	---	---	---	---	---

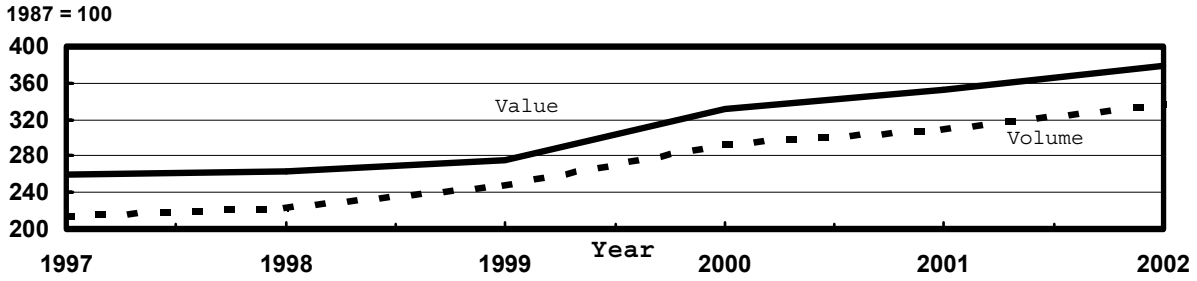
[1] Converted to Euro in 2002.
Source: Federal Reserve Bank of St. Louis and Federal Reserve Board of Governors.

Table 18.--Volume and value of U.S. hardwood log exports, by region, 1998-2003
(Cubic meters and thousands of dollars, f.a.s.)

Year/quarter	Canada		Central and South America and Caribbean		Western Europe	
	Volume	Value	Volume	Value	Volume	Value
1998	1,082,888	136,527	17,286	7,587	198,647	87,903
1999	1,236,647	146,884	21,907	8,027	190,690	86,617
2000	1,414,829	173,648	11,922	4,385	272,605	109,201
2001	1,499,979	168,641	10,389	4,275	266,798	107,671
2002/1	428,857	46,765	2,065	982	77,064	35,271
2002/2	345,159	38,887	3,142	1,632	70,741	26,272
2002/3	435,956	46,141	5,591	2,594	30,802	14,564
2002/4	399,443	42,083	2,986	1,350	46,405	21,392
Total 2002	1,609,415	173,877	13,784	6,558	225,012	97,499
2003/1	419,209	50,562	4,061	1,793	69,556	34,409
2003/2	345,181	46,112	4,661	2,164	68,420	29,659
2003/3	---	---	---	---	---	---
2003/4	---	---	---	---	---	---
Total 2003	---	---	---	---	---	---

Year/quarter	Asia		All other		Total	
	Volume	Value	Volume	Value	Volume	Value
1998	198,787	79,644	1,473	442	1,499,081	312,104
1999	221,235	83,264	2,788	1,545	1,673,267	326,338
2000	274,770	103,210	4,338	2,482	1,978,464	392,927
2001	307,510	134,803	5,977	2,602	2,090,653	417,992
2002/1	114,348	48,433	2,769	972	625,103	132,424
2002/2	127,520	52,103	2,889	1,041	549,451	119,935
2002/3	85,043	32,456	2,487	813	559,879	96,569
2002/4	84,243	34,044	2,658	987	535,735	99,856
Total 2002	411,154	167,037	10,803	3,813	2,270,168	448,785
2003/1	107,141	44,639	3,098	2,210	603,065	133,612
2003/2	105,841	44,071	4,304	2,946	528,407	124,952
2003/3	---	---	---	---	---	---
2003/4	---	---	---	---	---	---
Total 2003	---	---	---	---	---	---

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



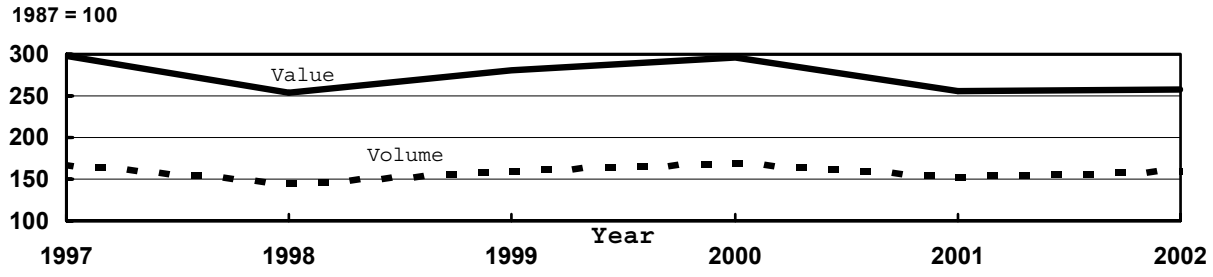
Volume and value index of all U.S. hardwood log exports, 1997 - 2002.

Table 19.--Volume and value of U.S. hardwood lumber exports, by region, 1998-2003
(Cubic meters and thousands of dollars, f.a.s.)

Year/quarter	Canada		Central and South America and Caribbean		Western Europe	
	Volume	Value	Volume	Value	Volume	Value
1998	811,902	301,438	207,545	85,194	836,528	520,776
1999	950,589	347,841	237,028	100,651	801,002	507,768
2000	1,025,912	396,920	252,449	95,557	837,548	528,130
2001	906,295	338,360	194,029	74,051	734,458	446,828
2002/1	256,757	93,895	38,733	13,572	185,586	107,845
2002/2	237,986	88,713	42,812	15,939	183,043	108,348
2002/3	227,629	85,424	44,977	17,738	155,133	94,895
2002/4	243,942	90,849	49,376	18,205	147,293	90,687
Total 2002	966,314	358,881	175,898	65,455	671,055	401,775
2003/1	267,234	105,705	42,115	15,878	170,456	104,344
2003/2	265,795	106,555	51763	22,278	159,723	99,086
2003/3	---	---	---	---	---	---
2003/4	---	---	---	---	---	---
Total 2003	---	---	---	---	---	---

Year/quarter	Asia		All other		Total	
	Volume	Value	Volume	Value	Volume	Value
1998	555,887	267,596	54,276	31,876	2,466,138	1,206,880
1999	703,086	347,333	50,855	30,837	2,742,560	1,334,432
2000	725,765	356,099	57,109	31,829	2,898,783	1,408,535
2001	743,233	334,082	32,625	20,592	2,610,640	1,213,913
2002/1	211,412	89,022	7,821	4,803	700,309	309,137
2002/2	252,080	107,222	8,429	5,434	724,350	325,656
2002/3	227,058	97,895	10,274	6,570	665,071	302,522
2002/4	186,644	82,201	7,235	4,934	634,490	286,876
Total 2002	877,194	376,340	33,759	21,741	2,724,220	1,224,192
2003/1	215,498	91,445	9,171	6,411	704,474	323,784
2003/2	196,470	82,332	6,595	4,189	680,346	314,440
2003/3	---	---	---	---	---	---
2003/4	---	---	---	---	---	---
Total 2003	---	---	---	---	---	---

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



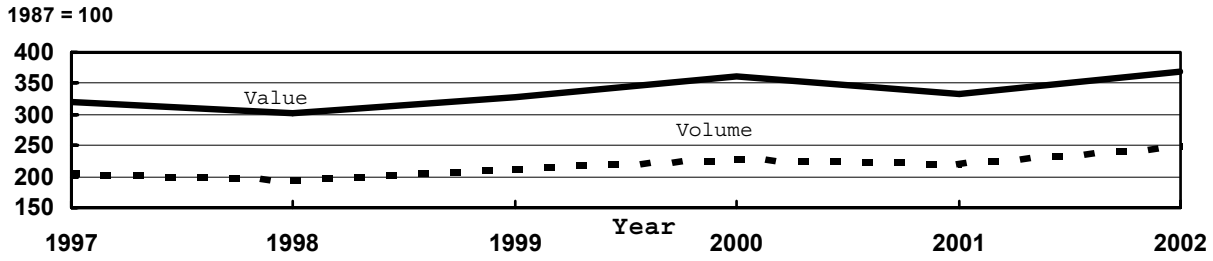
Volume and value index of all U.S. hardwood lumber exports, 1997 - 2002.

Table 20.--Volume and value of U.S. hardwood veneer exports, by region, 1998-2003
(Million square meters and thousands of dollars, f.a.s.)

Year/quarter	Canada		Central and South America and Caribbean		Western Europe	
	Volume	Value	Volume	Value	Volume	Value
1998	58.8	82,705	9.0	12,357	137.7	184,799
1999	74.7	102,203	11.0	14,893	132.1	177,812
2000	85.1	119,474	11.4	14,960	13.2	185,672
2001	88.9	113,772	9.0	11,550	120.2	165,591
2002/1	24.0	30,960	3.2	4,302	27.6	36,315
2002/2	30.5	38,235	3.1	3,819	30.5	42,340
2002/3	22.1	31,638	3.8	5,131	23.3	32,679
2002/4	22.6	30,143	3.1	4,029	32.6	46,069
Total 2002	99.1	130,977	13.3	17,281	113.9	157,403
2003/1	24.8	35,417	2.2	3,059	25.4	35,802
2003/2	25.9	36,823	3.3	4,027	32.0	45,797
2003/3	---	---	---	---	---	---
2003/4	---	---	---	---	---	---
Total 2003	---	---	---	---	---	---

Year/quarter	Asia		All other		Total	
	Volume	Value	Volume	Value	Volume	Value
1998	36.1	46,955	8.4	10,475	249.9	337,291
1999	46.0	59,228	10.6	12,179	274.4	366,313
2000	52.7	69,467	13.1	15,890	293.8	405,462
2001	55.1	69,805	9.2	10,829	282.5	371,548
2002/1	17.5	20,959	2.2	2,587	74.5	95,124
2002/2	21.5	26,795	2.9	3,057	88.4	114,246
2002/3	20.4	24,624	3.2	3,375	72.8	97,446
2002/4	20.0	23,621	3.3	2,924	81.6	106,787
Total 2002	79.5	95,998	11.4	11,943	317.3	413,602
2003/1	14.9	18,358	2.7	3,019	69.9	95,656
2003/2	17.6	20,646	3.5	3,932	82.2	111,224
2003/3	---	---	---	---	---	---
2003/4	---	---	---	---	---	---
Total 2003	---	---	---	---	---	---

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



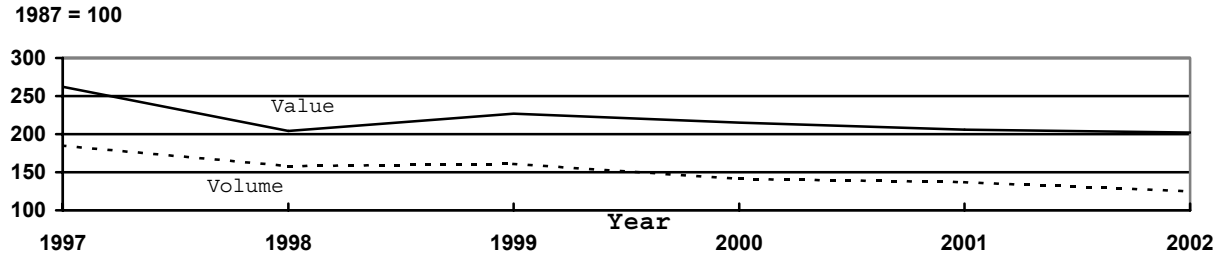
Volume and value index of all U.S. hardwood veneer exports, 1997 - 2002.

Table 21.--Volume and value of U.S. hardwood plywood exports, by region, 1998-2003
(Cubic meters and thousands of dollars, f.a.s.)

Year/quarter	Canada		Central and South America and Caribbean		Western Europe	
	Volume	Value	Volume	Value	Volume	Value
1998	56,942	19,427	19,654	7,257	911	263
1999	50,036	20,084	30,304	11,161	1,279	337
2000	46,942	22,235	19,489	7,154	703	249
2001	43,855	21,100	20,936	5,955	999	531
2002/1	11,836	5,701	6,575	1,944	514	208
2002/2	11,369	5,755	5,109	1,840	298	151
2002/3	10,251	4,752	5,480	2,300	542	259
2002/4	7,927	3,867	3,193	1,096	553	207
Total 2002	41,383	20,075	20,357	7,179	1,907	826
2003/1	18,829	8,792	2,487	832	316	191
2003/2	14,595	6,686	2,378	754	405	185
2003/3	---	---	---	---	---	---
2003/4	---	---	---	---	---	---
Total 2003	---	---	---	---	---	---

Year/quarter	Asia		All other		Total	
	Volume	Value	Volume	Value	Volume	Value
1998	4,699	2,444	880	224	83,086	29,616
1999	2,591	1,192	428	184	84,638	32,960
2000	6,581	1,461	282	112	73,997	31,211
2001	6,572	2,269	38	9	72,400	29,864
2002/1	462	288	31	11	19,418	8,153
2002/2	433	105	58	21	17,267	7,872
2002/3	387	370	59	17	16,719	7,698
2002/4	948	468	0	0	12,621	5,638
Total 2002	2,230	1,231	148	49	66,025	29,360
2003/1	376	248	140	31	22,148	10,093
2003/2	375	302	0	0	17,753	7,927
2003/3	---	---	---	---	---	---
2003/4	---	---	---	---	---	---
Total 2003	---	---	---	---	---	---

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



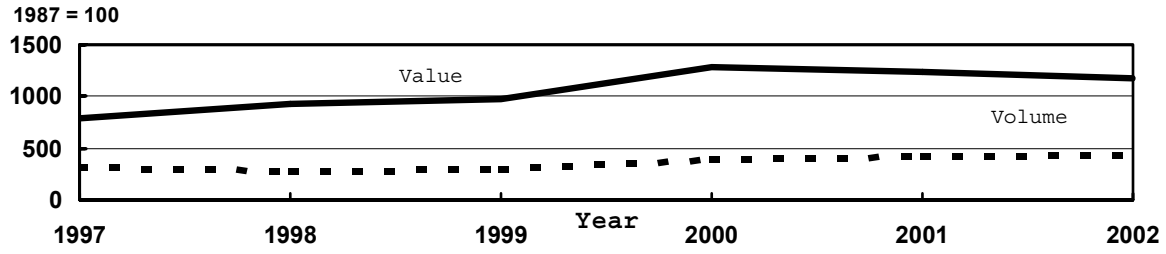
Volume and value index of all U.S. hardwood plywood exports, 1997 - 2002.

Table 22.--Volume and value of U.S. hardwood log imports, by region, 1998-2003
(Cubic meters and thousands of dollars, c.i.f.)

Year/quarter	Canada		Central and South America and Caribbean		Africa	
	Volume	Value	Volume	Value	Volume	Value
1998	163,840	29,594	5,901	1,368	816	253
1999	167,478	30,785	7,313	1,372	1,459	567
2000	227,176	41,469	6,322	1,679	1,030	660
2001	248,183	39,021	5,199	1,541	729	331
2002/1	57,409	10,364	12,842	1,471	472	224
2002/2	52,961	7,580	1,817	525	59	53
2002/3	76,499	8,445	5,445	781	186	127
2002/4	59,032	8,791	1,815	562	221	128
Total 2002	245,901	35,179	21,919	3,338	938	532
2003/1	56,369	10,842	765	397	81	105
2003/2	33,457	7,929	3,947	934	159	153
2003/3	---	---	---	---	---	---
2003/4	---	---	---	---	---	---
Total 2003	---	---	---	---	---	---

Year/quarter	Asia and Pacific Ocean		All other		Total	
	Volume	Value	Volume	Value	Volume	Value
1998	734	569	2,444	1,857	173,735	33,642
1999	922	934	3,887	1,544	181,059	35,200
2000	1,332	828	4,344	2,064	240,204	46,701
2001	4,171	1,607	5,989	2,184	264,271	44,684
2002/1	362	374	593	427	71,678	12,860
2002/2	166	125	1,785	993	56,788	9,275
2002/3	200	106	861	623	83,191	10,081
2002/4	322	342	2,372	572	63,762	10,394
Total 2002	1,050	947	5,611	2,615	275,419	42,611
2003/1	355	249	507	508	58,077	12,102
2003/2	1,088	427	765	1,012	39,416	10,455
2003/3	---	---	---	---	---	---
2003/4	---	---	---	---	---	---
Total 2003	---	---	---	---	---	---

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



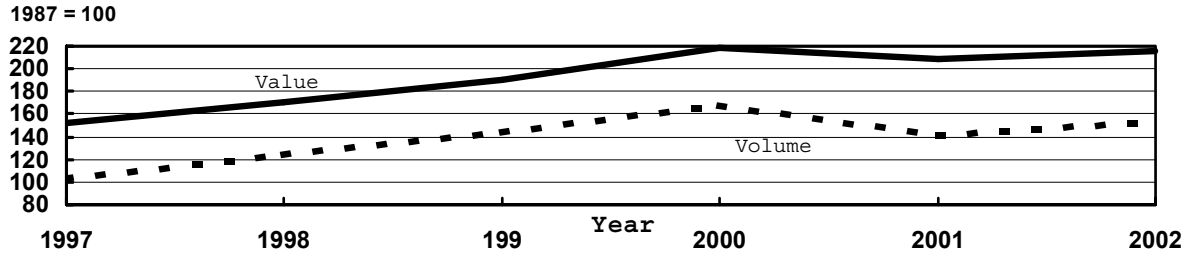
Volume and value index of all U.S. hardwood log imports, 1997 - 2002.

Table 23.--Volume and value of U.S. hardwood lumber imports, by region, 1998-2003
(Cubic meters and thousands of dollars, c.i.f.)

	Canada		Central and South America and Caribbean		Africa	
Year/quarter	Volume	Value	Volume	Value	Volume	Value
1998	925,435	206,859	251,840	138,606	33,125	19,406
1999	1,102,642	245,947	257,073	143,630	30,136	18,154
2000	1,224,411	267,927	294,417	155,872	53,873	30,669
2001	1,031,403	236,046	253,297	174,348	57,163	28,668
2002/1	267,538	59,457	61,011	41,035	11,000	5,613
2002/2	287,134	67,440	63,308	42,613	15,909	7,990
2002/3	292,698	64,214	63,141	41,760	14,658	7,642
2002/4	300,078	62,210	69,156	42,235	13,460	7,201
Total 2002	1,147,448	253,321	256,616	167,643	55,027	28,446
2003/1	277,960	64,106	62,268	36,734	23,189	6,865
2003/2	271,166	67,044	68,904	37,365	13,027	7,796
2003/3	---	---	---	---	---	---
2003/4	---	---	---	---	---	---
Total 2003	---	---	---	---	---	---

	Asia and Pacific Ocean		All other		Total	
Year/quarter	Volume	Value	Volume	Value	Volume	Value
1998	92,937	67,610	10,520	4,469	1,313,857	436,949
1999	111,601	76,436	19,545	5,916	1,520,997	490,083
2000	152,702	93,748	35,392	9,425	1,760,795	557,641
2001	108,988	81,260	44,140	13,552	1,494,991	533,874
2002/1	20,520	16,943	6,490	3,335	366,559	126,383
2002/2	35,081	24,474	12,872	4,731	414,304	147,248
2002/3	27,983	23,044	22,213	6,866	420,693	143,526
2002/4	27,358	18,776	17,314	6,903	427,366	137,325
Total 2002	110,942	83,236	58,889	21,835	1,628,922	554,482
2003/1	23,954	18,111	12,932	5,424	400,303	131,241
2003/2	26,646	22,583	23,210	7,034	402,953	141,821
2003/3	---	---	---	---	---	---
2003/4	---	---	---	---	---	---
Total 2003	---	---	---	---	---	---

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



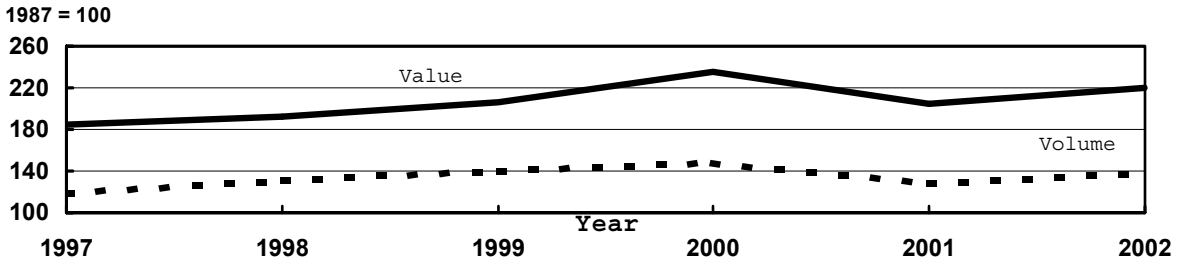
Volume and value index of all U.S. hardwood lumber imports, 1997 - 2002.

Table 24.--Volume and value of U.S. hardwood veneer imports, by region, 1998-2003
(Million square meters and thousands of dollars, c.i.f.)

Year/quarter	Canada		Central and South America and Caribbean		Africa	
	Volume	Value	Volume	Value	Volume	Value
1998	122.3	163,452	32.7	43,149	20.3	22,770
1999	133.8	183,218	31.7	37,669	26.2	27,940
2000	139.7	209,551	28.7	36,165	25.0	26,808
2001	18.7	182,502	27.4	35,336	24.4	27,100
2002/1	33.0	49,026	6.8	8,248	5.0	5,331
2002/2	34.5	54,650	6.0	8,234	8.0	9,326
2002/3	27.2	41,095	8.8	9,295	8.9	10,708
2002/4	28.1	40,866	7.6	9,683	7.3	9,303
Total 2002	122.9	185,638	29.2	35,459	29.3	34,668
2003/1	28.5	43,397	6.7	7,573	5.8	6,376
2003/2	28.4	43,246	5.0	4,968	6.5	7,881
2003/3	---	---	---	---	---	---
2003/4	---	---	---	---	---	---
Total 2003	---	---	---	---	---	---

Year/quarter	Asia and Pacific Ocean		All other		Total	
	Volume	Value	Volume	Value	Volume	Value
1998	13.8	16,140	16.4	46,579	205.4	292,090
1999	11.0	14,543	15.6	48,631	218.5	312,000
2000	10.7	16,753	26.2	67,130	230.4	356,407
2001	10.5	13,943	19.6	49,325	200.6	308,206
2002/1	2.1	3,199	4.1	13,004	51.2	78,808
2002/2	3.5	3,260	8.0	16,701	60.2	92,171
2002/3	2.4	4,544	6.9	18,066	54.1	83,708
2002/4	2.6	3,691	4.6	14,387	50.2	77,931
Total 2002	10.7	14,693	23.6	62,158	215.6	332,617
2003/1	2.7	4,504	4.3	12,390	48.0	74,240
2003/2	3.0	4,074	3.7	13,930	46.7	74,098
2003/3	---	---	---	---	---	---
2003/4	---	---	---	---	---	---
Total 2003	---	---	---	---	---	---

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



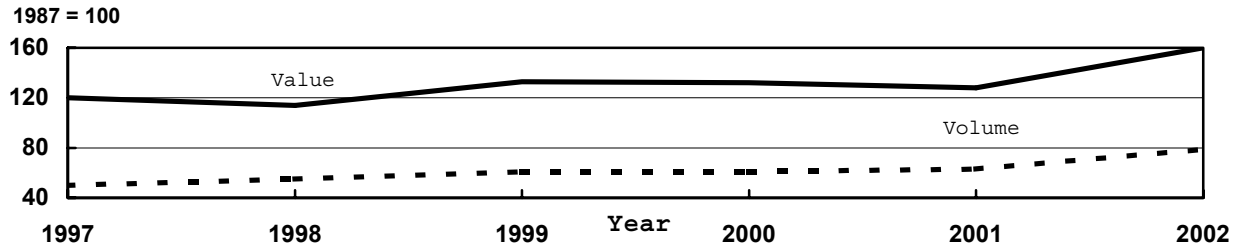
Volume and value index of all U.S. hardwood veneer imports, 1997 - 2002.

Table 25.--Volume and value of U.S. hardwood plywood imports, by region, 1998-2003
(Cubic meters and thousands of dollars, c.i.f.)

Year/quarter	Canada		Central and South America and Caribbean		Africa	
	Volume	Value	Volume	Value	Volume	Value
1998	272,249	134,029	185,572	72,300	881	534
1999	297,190	157,470	275,804	97,048	1,619	659
2000	340,356	171,449	337,255	120,789	12,487	4,308
2001	321,534	164,960	328,089	103,139	16,761	5,672
2002/1	84,763	43,620	83,319	23,996	2,348	845
2002/2	97,938	52,786	104,272	31,393	3,978	1,310
2002/3	78,023	44,448	117,125	35,902	5,794	1,835
2002/4	74,715	44,263	95,026	28,805	6,313	2,034
Total 2002	335,439	185,117	399,742	120,096	18,433	6,024
2003/1	75,133	39,767	104,436	32,227	2,541	887
2003/2	84,894	47,938	127,225	39,173	4,118	1,434
2003/3	---	---	---	---	---	---
2003/4	---	---	---	---	---	---
Total 2003	---	---	---	---	---	---

Year/quarter	Asia and Pacific Ocean		All other		Total	
	Volume	Value	Volume	Value	Volume	Value
1998	1,217,893	441,262	203,580	91,060	1,880,175	739,185
1999	1,211,676	493,765	284,589	111,682	2,070,878	860,625
2000	1,046,752	424,576	344,230	131,551	2,081,080	852,673
2001	1,057,852	401,010	409,780	152,456	2,134,016	827,236
2002/1	296,031	102,162	76,976	29,599	543,437	200,222
2002/2	355,306	128,906	175,232	53,022	736,726	267,417
2002/3	418,489	159,337	151,247	59,546	770,678	301,069
2002/4	339,205	136,745	139,434	56,877	654,693	268,724
Total 2002	1,409,031	527,151	542,889	199,044	2,705,534	1,037,432
2003/1	371,444	139,726	86,933	35,385	640,487	247,992
2003/2	365,263	135,845	137,451	53,569	718,951	277,959
2003/3	---	---	---	---	---	---
2003/4	---	---	---	---	---	---
Total 2003	---	---	---	---	---	---

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

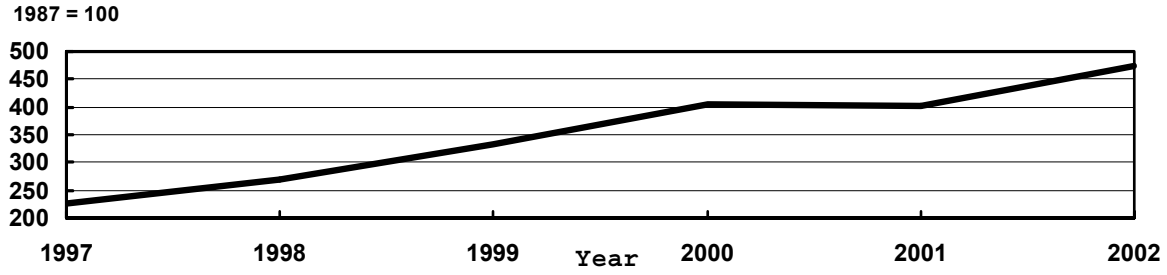


Volume and value index of all U.S. hardwood plywood imports, 1997 - 2002.

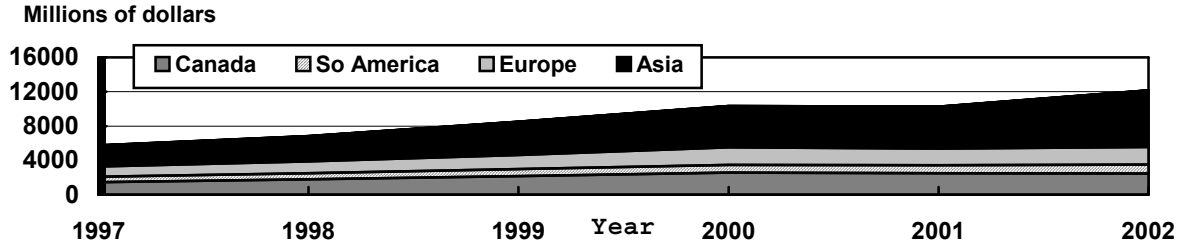
Table 26.--Value of U.S. wood furniture imports, by region, 1998-2003
(Thousands of dollars, c.i.f.)

Year/ quarter	Canada	Central and South America and Caribbean	Europe	Asia, Middle East, and Pacific	All other	Total
1998	1,785,320	701,456	1,393,502	2,955,214	34,429	6,869,921
1999	2,173,010	800,299	1,636,374	3,908,433	32,366	8,550,482
2000	2,556,924	914,657	2,038,683	4,819,201	40,507	10,369,973
2001	2,486,092	927,366	1,942,661	4,916,402	38,312	10,310,834
2002/1	586,047	227,260	454,006	1,333,967	7,072	2,608,353
2002/2	627,976	261,964	509,944	1,666,967	8,401	3,075,252
2002/3	635,344	275,205	553,440	1,778,856	8,212	3,251,058
2002/4	626,896	274,952	523,668	1,819,716	10,116	3,255,349
Total 2002	2,476,264	1,039,382	2,041,059	6,599,506	33,801	12,190,012
2003/1	604,553	247,781	490,319	1,791,486	8,341	3,142,481
2003/2	626,341	266,540	526,589	1,962,662	8,396	3,390,528
2003/3	---	---	---	---	---	---
2003/4	---	---	---	---	---	---
Total 2003	---	---	---	---	---	---

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



Value index of U.S. furniture imports, 1997 - 2002.



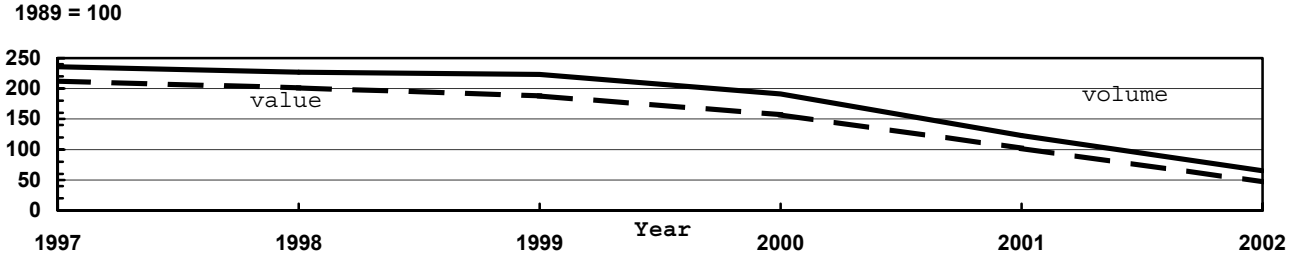
Value of U.S. furniture imports, by region, 1997 - 2002.

Table 27.--Volume and value of U.S. exports of nonconiferous chips, by region, 1998-2003
(Tons and thousands of dollars, f.a.s.)

	Western Europe		Canada		Japan		Mexico	
Year/quarter	Volume	Value	Volume	Value	Volume	Value	Volume	Value
1998	5,059	564	268,536	8,831	3,566,618	311,816	0	0
1999	7,895	909	250,204	8,197	3,320,756	278,124	253	94
2000	25,042	10,642	294,118	9,549	2,734,753	217,700	15,001	934
2001	30,842	11,574	335,617	10,369	1,573,815	127,539	0	0
2002/1	7,761	2,800	87,562	2,570	282,468	22,633	0	0
2002/2	5,725	2,103	93,950	2,882	111,394	9,497	0	0
2002/3	55,671	2,557	107,291	3,298	117,594	7,889	4	3
2002/4	4,188	1,825	102,437	3,039	55,863	5,022	275	19
Total 2002	73,345	9,285	391,240	11,789	567,319	45,042	279	22
2003/1	4,754	1,794	94,449	2,989	37,573	3,261	2	8
2003/2	1,922	827	81,193	2,778	15,623	1,562	18	7
2003/3	---	---	---	---	---	---	---	---
2003/4	---	---	---	---	---	---	---	---
Total 2003	---	---	---	---	---	---	---	---

	Taiwan		Korea		All other		Total	
Year/quarter	Volume	Value	Volume	Value	Volume	Value	Volume	Value
1998	0	0	33,390	3,477	10,702	1,502	3,884,305	326,190
1999	0	0	221,253	15,317	14,310	1,588	3,814,671	304,231
2000	1,012	612	195,435	11,336	10,355	2,802	3,275,716	253,575
2001	4,322	2,637	143,781	10,424	10,325	1,829	2,098,702	164,372
2002/1	943	381	3,900	1,452	493	328	383,127	30,165
2002/2	669	254	45,493	2,303	2,532	1,050	259,763	18,090
2002/3	1,166	484	23,525	1,908	2,656	864	307,907	17,004
2002/4	1,412	623	100	44	1,028	292	165,303	10,865
Total 2002	4,190	1,743	73,018	5,707	6,709	2,535	1,116,100	76,123
2003/1	3,228	1,340	28,698	3,587	5,083	1,180	173,787	14,158
2003/2	1,117	531	20,392	1,577	2,087	683	122,352	7,965
2003/3	---	---	---	---	---	---	---	---
2003/4	---	---	---	---	---	---	---	---
Total 2003	---	---	---	---	---	---	---	---

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



Volume and value index of all U.S. exports of nonconiferous chips, 1997 - 2002.

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 pounds
1 metric ton = 2204.623 pounds

* 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.