



Lumber News Since 1922

HARDWOOD MARKET REPORT



~ Memphis, Tennessee ~
Telephone: 901-767-9126 ~ Fax: 901-767-7534 ~ Website: www.hmr.com

VOLUME XCII, NUMBER 27

HMR®

July 4, 2014

International Trade of U.S. Hardwood Lumber and Logs, 1990-2013

By: **William G. Luppold**

Economist, Northern Research Station, U.S. Forest Service
Princeton, WV

and

Matthew S. Bumgardner

Research Forest Products Technologist, U.S. Forest Service
Delaware, OH

Introduction

United States (U.S.) hardwood log and lumber exports surged in the early- and mid-1970s in response to the adoption of floating exchange rates. However, assessing these changes in international trade became difficult in the 1980s due to increased underreporting of hardwood lumber and log shipments between the U.S. and Canada. By 1990, these data problems were rectified, allowing 1990 to be the earliest starting point for any analysis of hardwood lumber or log trade. The complements to hardwood lumber and log exports are hardwood imports for domestic consumption. U.S. hardwood lumber and log imports and exports have fluctuated since 1990. The source and destination countries have

(Continued on page 5)

- May sales of new single family homes jumped 18.6% over April to 504,000 units and were 16.9% ahead of the previous year. The median price for new single family houses rose 4.6% for the month and 6.9% for the year.
- Inventories of new single family homes for sale were flat in May compared to April, holding at 189,000 units but were 16.7% higher than one year earlier. Based on the May 2014 rate of sales, there were 4.5 months supply of new homes for sale at the end of May.
- Existing home sales gained 4.9% in May from April to 4,890,000 units but were off 5.0% from one year earlier. Unit inventories climbed 2.2% for the month and 6.0% for the year, which equaled 5.6 months supply at the May rate of sales. The median price increased 5.1% over May 2013 to \$213,400.

The May Advance Report on Durable Goods shows shipments increased 0.3%, but new orders declined 1.0%.

The US GDP decreased at an annual rate of 2.9% in 1Q 2014 from 4Q 2013.

US corporate profits dropped \$198.3B in 1Q 2014 compared to an increase of \$47.1B in 4Q 2013.

The US import price index edged up 0.1% in May over April.



© 2014 HARDWOOD MARKET REPORT

92 YEARS AUTHORITY HARDWOOD MARKET REPORTING

It is illegal to photocopy, reproduce, sell, publish, broadcast, or transmit this publication in any way, in whole, or in part, without the express written permission of the owner. This publication is copyrighted under the statutes of the United States. The compilation of facts and information provided herein is the subject of private property rights of the publisher and is protected by copyright and intellectual property laws. Prices published in Hardwood Market Report are presented only as a guide. **Prices and commentary are based on unprejudiced, independently gathered information from a wide range of dependable industry sources.** Listed prices are estimates compiled from data that represent current transactions and/or trends, and are not designed to predict future prices. Actual prices may differ due to variations in quality, volume, area location, freight considerations, specifications, or other circumstances.

WHITE OAK - WHND					FRAMESTOCK-AIRDRIED		
	FAS	1F	#1C	SW			
4/4	780	770	605	495	4/4 OAK S2S	(445-600)	
5/4	810	800	655	545	4/4 MIXED S2S	(445-600)	
POPLAR						CANTS - GREEN	
	FAS	1F	#1C	#2A	#2B		
4/4	830	820	545	385	235	4x4, 4x6	430 (385-505)
5/4	835	825	550	390	250		
6/4	840	830	560	395	260		
8/4	845	835	575	400	260		
10/4	865	855	580	410	275		
12/4	905	895	600	425	285		
16/4	945	935	630	440	290		
WALNUT					TIES - 7x9 - GREEN		
	FAS	1F	#1C	#2A			
4/4	2840	2740	1550	990	<i>SOUTHERN APPALACHIAN - 8½'</i> CROSSTIES (24.50-30.00) Per Pc.		
5/4	3000	2900	1615	1020	<i>NORTHERN APPALACHIAN - 8½'</i> CROSSTIES (24.50-29.00) Per Pc.		
6/4	3395	3295	1725	1125	BOARD ROAD - GREEN		
8/4	3600	3500	1850	1160	515	(480-570)	

© 2014 Hardwood Market Report

International Trade of U.S. Hardwood Lumber and Logs, 1990-2013 (Continued from page 1)

changed, as has the balance of trade between exports and imports of these products.

Balance of trade, in simple terms, is expressed as the dollar value exported versus the dollar value imported. This balance is normally reported in arithmetic terms (value of exports minus value of imports). All import and export information presented in this article were obtained from the U.S. Department of Agriculture, Foreign Agricultural Service's GATS data base and were deflated to 1982 dollars to remove the influence of price inflation. The objective of this paper was to examine U.S. exports and imports of hardwood lumber and logs by determining: 1) the receiving countries and regions of exports, 2) the source countries and regions of imports, and 3) the balance of trade for these products.

Hardwood Lumber and Log Exports

Lumber has been the most important hardwood product exported since 1990 based on value. In 1990, Canada was the largest export market for U.S. hardwood lumber, with a 25 percent market share (Table 1); however, Western Europe was the most important export region overall, with a combined market share of 39 percent. Japan and Taiwan were the most important East Asian markets for hardwood lumber in 1990. Lumber shipped to Japan generally remained in country in some type of product form, while lumber shipped to Taiwan often was used to manufacture furniture and other secondary products exported primarily to the United States.

In 2000, Canada remained the largest single market receiving U.S. hardwood

(Continued on page 7)

Prices in this matrix are for kiln dried lumber **measured before kiln drying**. The first figure listed for each grade and thickness is the predominant price; figures in parentheses are the prevailing range. Bold figures indicate change. Prices published in **Hardwood Market Report** are presented only as a guide. **See statement on page one.** © 2014 *Hardwood Market Report*

		<u>FAS</u>	<u>#1 Common</u>	<u>#2A Common</u>
WHITE OAK	4/4	1960 (1870-2035)	1490 (1440-1565)	1150 (1105-1210)
	5/4	2115 (2045-2235)	1530 (1490-1600)	1180 (1135-1235)
	6/4	2595 (2525-2665)	1630 (1580-1695)	1200 (1140-1250)
	8/4	3165 (3110-3260)	1790 (1740-1860)	1250 (1195-1295)
POPLAR	4/4	1085 (1040-1155)	725 (680-780)	555 (515-600)
	5/4	1095 (1045-1165)	750 (700-810)	570 (530-615)
	6/4	1100 (1055-1180)	785 (745-835)	580 (545-625)
	8/4	1130 (1075-1185)	815 (760-865)	605 (570-650)
WALNUT	4/4	3540 (3445-3625)	2040 (1970-2130)	1255 (1190-1335)
	5/4	3980 (3900-4015)	2150 (2105-2200)	1335 (1270-1420)
	6/4	4140 (4040-4170)	2370 (2295-2450)	1475 (1430-1525)
	8/4	4500 (4420-4550)	2580 (2525-2640)	1610 (1555-1685)

International Trade of U.S. Hardwood Lumber and Logs, 1990-2013 *(Continued from page 5)*

lumber; Western Europe remained the largest export region. However, China (China, as identified in this paper, includes Mainland China and the special administrative region of Hong Kong.) became the most important East Asian market, as the wood furniture industry moved from Taiwan to mainland China. Hardwood lumber exports decreased between 2000 and 2009, as exports to Western Europe and North America declined. By contrast, exports to East Asia increased during this period and China became the largest market in 2009. By 2013, 45 percent of U.S. hardwood lumber exports went to China, while the export market share of both Canada and Western Europe declined to 14 and 13 percent, respectively. Vietnam also was a major market for U.S. hardwood lumber in 2013. Similar to Taiwan, lumber exported to Vietnam was processed into secondary products that were eventually exported back to the U.S. and other furniture importing countries.

In 1990, Japan was the largest export market for U.S. hardwood logs on a value basis (Table 1). East Asia was the most important export region with a 38 percent combined market share. Other important markets for hardwood logs were Canada, Germany, Italy, and South Korea. Canada, Germany, Japan, and Italy remained major export markets for U.S. hardwood logs in 2000. Exports increased between 2000 and 2007 with most of the gains in shipments to East Asia and West Europe. Exports to all regions decreased between 2007 and 2009. Exports to all regions other than East Asia continued to be relatively low between 2009 and 2013. In 2013, 45 percent of logs exported by the United States were shipped to China, and an additional six percent were exported to Vietnam. The relatively high prices of logs exported to China

(Continued on page 9)

Prices in this matrix are for kiln dried lumber **measured after kiln drying ("net tally")**. The first figure listed for each grade and thickness is the predominant index price; figures in the parentheses are the prevailing range of index prices. Bold figures indicate change. Prices published in **Hardwood Market Report** are presented only as a guide. **See statement on page one.**
 © 2014 *Hardwood Market Report*

		FAS (Net)		#1 Common (Net)		#2A Common (Net)	
WHITE OAK	4/4	2100	(2005-2180)	1600	(1545-1680)	1235	(1185-1300)
	5/4	2270	(2195-2400)	1645	(1600-1720)	1270	(1220-1330)
	6/4	2780	(2705-2855)	1750	(1695-1820)	1290	(1225-1345)
	8/4	3395	(3335-3495)	1920	(1865-1995)	1340	(1280-1390)
POPLAR	4/4	1165	(1115-1240)	780	(730-840)	595	(555-645)
	5/4	1175	(1120-1250)	805	(750-870)	615	(570-660)
	6/4	1180	(1130-1265)	845	(800-895)	625	(585-670)
	8/4	1215	(1155-1270)	875	(815-930)	650	(615-700)
WALNUT	4/4	3795	(3695-3890)	2185	(2110-2285)	1345	(1275-1430)
	5/4	4265	(4180-4305)	2305	(2255-2360)	1430	(1365-1525)
	6/4	4435	(4330-4470)	2540	(2460-2625)	1585	(1535-1635)
	8/4	4820	(4735-4875)	2765	(2705-2830)	1725	(1670-1805)

International Trade of U.S. Hardwood Lumber and Logs, 1990-2013 *(Continued from page 7)*

in 2013 (\$494 per cubic meter) suggest many of these logs were processed into veneer used for plywood faces or furniture veneer.

Hardwood Lumber and Log Imports

In 1990, Canada was the most important individual source country for U.S. hardwood lumber imports (Table 2), and Latin America was the most important source region at 43 percent in 1990. Another 20 percent of the hardwood lumber imported in 1990 was sourced from multiple East Asian countries. U.S. hardwood lumber imports increased by over 200 percent between 1990 and 2000, while imports of lumber from Canada increased by 388 percent, making North America the most important source region in that year. Hardwood lumber imports increased another 23 percent between 2000 and 2005, with the greatest increase coming from South and Central America. Hardwood lumber imports declined by 66 percent between 2005 and 2009 but have increased by 39 percent between 2009 and 2013. In 2012, imports from Brazil were slightly higher than imports from Canada on a dollar value basis; Canada regained the leading market share in 2013. The most important component of Brazilian imports is ipe (*Tabebuia* spp.), a species commonly used for exterior purposes such as siding and decking, while maple and other temperate species have been the mainstay of Canadian imports.

While hardwood logs are an important U.S. export product, U.S. hardwood log imports are minor in comparison (Fig. 1). In 1990, Canada was the most important source of hardwood logs imported into the U. S. (Table 2), but East Asia was the most important source region overall, supplying nearly 40 percent

(Continued on page 11)

Prices in this matrix are for kiln dried lumber **measured before kiln drying**. The first figure listed for each grade and thickness is the predominant price; figures in parentheses are the prevailing range. Bold figures indicate change. Prices published in **Hardwood Market Report** are presented only as a guide. See statement on page one. © 2014 Hardwood Market Report

		FAS		#1 Common		#2A Common	
ASH	4/4	1410	(1350-1455)	985	(935-1025)	715	(675-745)
ASPEN	4/4	845	(775-900)	600	(560-640)	440	(410-470)
BASSWOOD	4/4	1090	(1045-1130)	710	(675-745)	445	(420-490)
	5/4	1120	(1070-1155)	730	(690-765)	460	(420-495)
	8/4	1280	(1230-1310)	915	(870-940)	555	(515-590)
	9/4	1315	(1260-1355)	935	(885-975)	580	(545-615)
YELLOW BIRCH	4/4	1675	(1605-1730)	1070	(1025-1115)	720	(685-770)
HARD MAPLE	4/4	2280	(2210-2320)	1805	(1745-1840)	1400	(1360-1440)
#1&2 White	5/4	2290	(2230-2335)	1790	(1730-1840)	- - -	- - - - -
	6/4	2345	(2280-2400)	1775	(1730-1840)	- - -	- - - - -
	8/4	2445	(2390-2500)	1835	(1780-1880)	- - -	- - - - -
HARD MAPLE	4/4	1885	(1820-1950)	1475	(1430-1550)	1155	(1100-1195)
Unselected	5/4	1930	(1855-2010)	1485	(1430-1550)	1155	(1100-1195)
SOFT MAPLE	4/4	1850	(1790-1900)	1265	(1220-1315)	890	(840-935)
Sap&Btr	5/4	1860	(1790-1900)	1265	(1220-1315)	890	(845-940)
	6/4	1865	(1800-1900)	1275	(1210-1335)	890	(845-935)
	8/4	1885	(1820-1950)	1350	(1295-1405)	920	(875-965)
SOFT MAPLE	4/4	1655	(1595-1710)	1075	(1015-1125)	775	(730-825)
Unselected							
RED OAK	4/4	1865	(1810-1930)	1450	(1400-1490)	1165	(1125-1210)
	5/4	1965	(1905-2010)	1475	(1430-1525)	1160	(1105-1200)
	6/4	2080	(2025-2155)	1515	(1460-1570)	- - -	- - - - -
WHITE OAK	4/4	1895	(1845-1950)	1415	(1355-1465)	1115	(1075-1155)

International Trade of U.S. Hardwood Lumber and Logs, 1990-2013 (Continued from page 9)

of all imports. Latin America and Africa also were important source regions, accounting for 14 and 13 percent of log imports, respectively, in 1990.

Between 1990 and 2000, hardwood log imports from East Asia and Africa declined by 87 and 61 percent, respectively. The decline was caused in part by restrictions on log exports from these regions. By contrast, imports from Canada increased by over 1,200 percent during this period, resulting in an 89 percent market share for Canada in 2000. Hardwood log imports declined by 65 percent between 2000 and 2013; yet, Canada still accounted for a high

(Continued on page 13)

Table 1 – Important export markets (ranked by value) for hardwood lumber and logs in 1990, 2000, and 2013

		1990	2000	2013
Product	Rank	Country (%)	Country (%)	Country (%)
Lumber	1	Canada (25)	Canada (28)	China (45)
	2	Japan (17)	China/HK (9)	Canada (14)
	3	U.K. (9)	Italy (7)	Vietnam (8)
	4	Belgium (7)	Spain (7)	Mexico (6)
	5	Taiwan (6)	Mexico (7)	NR ¹
Logs	1	Japan (22)	Canada (44)	China (45)
	2	Canada (21)	Germany (10)	Canada (17)
	3	Germany (17)	Japan (7)	Vietnam (6)
	4	Italy (7)	Italy (7)	NR
	5	S. Korea (6)	NR	NR

¹ Not reported because all others markets have less than 5 percent.

Table 2 – Important import sources (ranked by value) for hardwood lumber and logs in 1990, 2000, and 2013

		1990	2000	2013
Product	Rank	Country (%)	Country (%)	Country (%)
Lumber	1	Canada (33)	Canada (52)	Canada(24)
	2	Brazil (23)	Brazil (14)	Brazil (16)
	3	Bolivia (12)	Peru (7)	Cameroon (7)
	4	Malaysia (6)	Malaysia (7)	Germany (6)
	5	Philippines (5)	NR ¹	Ecuador (6)
Logs	1	Canada (25)	Canada (89)	Canada (80)
	2	Malaysia (13)	NR	China (8)
	3	Indonesia (8)	NR	NR
	4	Singapore (7)	NR	NR
	5	Ivory Coast (6)	NR	NR

¹ Not reported because all others markets have less than 5 percent.

Prices in this matrix are for kiln dried lumber **measured after kiln drying ("net tally")**. The first figure listed for each grade and thickness is the predominant index price; figures in the parentheses are the prevailing range of index prices. Bold figures indicate change. Prices published in **Hardwood Market Report** are presented only as a guide. **See statement on page one.**

© 2014 *Hardwood Market Report*

		FAS (Net)		#1 Common (Net)		#2A Common (Net)	
ASH	4/4	1515	(1450-1565)	1060	(1005-1100)	770	(725-800)
ASPEN	4/4	910	(835-965)	645	(600-690)	475	(440-505)
BASSWOOD	4/4	1170	(1125-1215)	765	(725-800)	480	(450-525)
	5/4	1205	(1150-1240)	785	(740-825)	495	(450-530)
	8/4	1375	(1320-1410)	985	(935-1010)	595	(555-635)
	9/4	1415	(1355-1455)	1005	(950-1050)	625	(585-660)
YELLOW BIRCH	4/4	1800	(1725-1860)	1150	(1100-1200)	775	(735-830)
HARD MAPLE	4/4	2450	(2375-2495)	1940	(1875-1980)	1505	(1460-1550)
#1&2 White	5/4	2460	(2400-2510)	1925	(1860-1980)	- - -	- - - - -
	6/4	2520	(2450-2580)	1910	(1860-1980)	- - -	- - - - -
	8/4	2630	(2570-2690)	1975	(1915-2020)	- - -	- - - - -
HARD MAPLE	4/4	2025	(1955-2095)	1585	(1535-1665)	1240	(1185-1285)
Unselected	5/4	2075	(1995-2160)	1595	(1535-1665)	1240	(1185-1285)
SOFT MAPLE	4/4	1990	(1925-2045)	1360	(1310-1415)	955	(905-1005)
Sap&Btr	5/4	2000	(1925-2045)	1360	(1310-1415)	955	(910-1010)
	6/4	2005	(1935-2045)	1370	(1300-1435)	955	(910-1005)
	8/4	2025	(1955-2095)	1450	(1390-1510)	990	(940-1040)
SOFT MAPLE	4/4	1780	(1715-1840)	1155	(1090-1210)	835	(785-885)
Unselected							
RED OAK	4/4	2005	(1945-2075)	1560	(1505-1600)	1255	(1210-1300)
	5/4	2115	(2050-2160)	1585	(1540-1640)	1245	(1190-1290)
	6/4	2235	(2180-2315)	1630	(1570-1690)	- - -	- - - - -
WHITE OAK	4/4	2040	(1985-2095)	1520	(1455-1575)	1200	(1155-1240)

International Trade of U.S. Hardwood Lumber and Logs, 1990-2013 (Continued from page 11)

proportion of imports. China was the second most important source country for log imports in 2013; 100 percent of the logs imported from this country were Paulownia.

Balance of U.S. Hardwood Product Trade

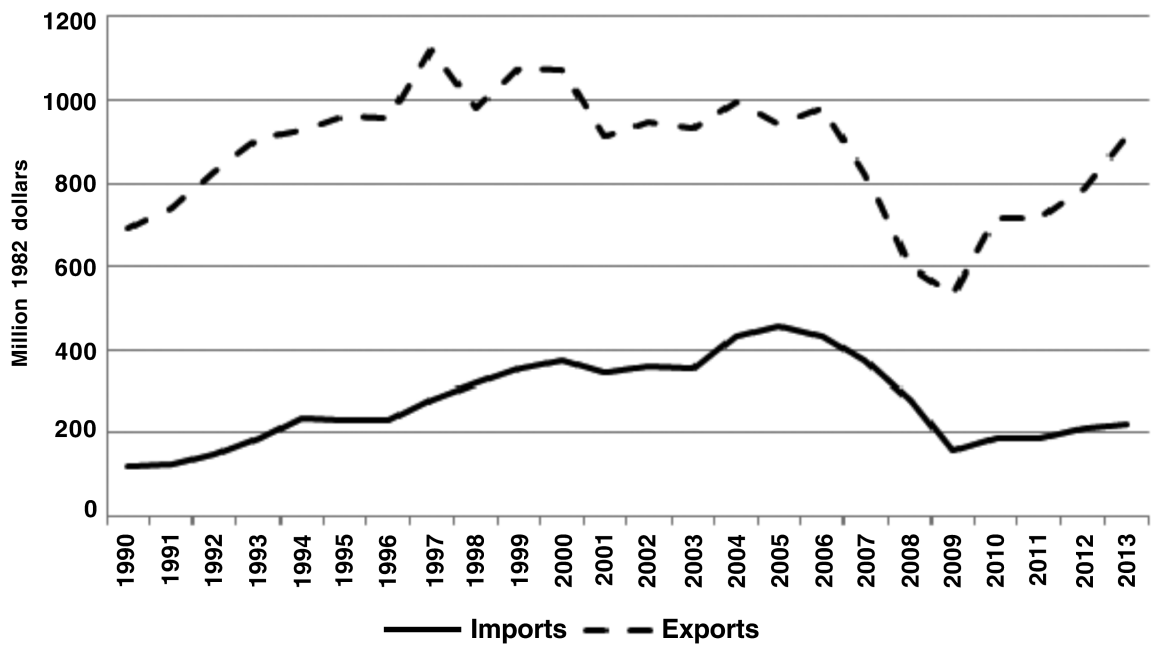
In 1990, the U. S. exported nearly six times more hardwood lumber than it imported (Fig. 2). On an inflation-adjusted basis, hardwood lumber exports attained their all-time high in 1997. Since the late 1990s, the real price of U.S. hardwood lumber exports has been trending downward, as the growth in prices has been lower than the rate of inflation. In addition, China has not paid as

(Continued on page 15)

Figure 1. U.S. hardwood log exports and imports, 1990 to 2013, in millions of 1982 dollars



Figure 2. U.S. hardwood lumber exports and imports, 1990 to 2013, in millions of 1982 dollars



Figures in the Appalachian and Southern area columns are estimates of manufacturers' **predominant** prices for unfinished Oak strip flooring; figures under the column heading Industry Range are estimates of **prevailing industry ranges** of manufacturers' prices. Variations in prices are due, in part, to differences in freight considerations, the nature of markets, volumes ordered and shipped, etc. Prices are for truckload and greater quantities graded in accordance with rules governed by or that functionally are comparable to standards set forth by NOFMA. **Prices are in US Dollars per square foot (SF) and are net of dealer discount fees and commissions.** Figures in bold print signify price changes. Prices in **Hardwood Market Report** are presented only as a guide. See statement on page one. © 2014 *Hardwood Market Report*

<u>3/4 x 2-1/4" OAK STRIP FLOORING</u>	<u>APPALACHIAN</u>	<u>SOUTHERN</u>	<u>INDUSTRY RANGE</u>
NOFMA CLEAR PLAIN WHITE OAK	2.55	2.55	2.45-2.65
NOFMA CLEAR PLAIN RED OAK	2.70	2.70	2.65-2.75
NOFMA SELECT PLAIN WHITE OAK	2.48	2.45	2.41-2.60
NOFMA SELECT PLAIN RED OAK	2.65	2.55	2.49-2.70
NOFMA No. 1 COM PLAIN WHITE OAK	2.34	2.32	2.27-2.50
NOFMA No. 1 COM PLAIN RED OAK	2.53	2.52	2.48-2.57
NOFMA No. 2 COM WHITE OAK	2.03	2.03	1.98-2.10
NOFMA No. 2 COM RED OAK	2.07	2.07	2.00-2.10
<u>3/4 x 3-1/4" OAK STRIP FLOORING</u>	<u>APPALACHIAN</u>	<u>SOUTHERN</u>	<u>INDUSTRY RANGE</u>
NOFMA CLEAR PLAIN WHITE OAK	2.80	2.80	2.70-2.85
NOFMA CLEAR PLAIN RED OAK	2.75	2.75	2.70-2.80
NOFMA SELECT PLAIN WHITE OAK	2.63	2.55	2.52-2.70
NOFMA SELECT PLAIN RED OAK	2.65	2.57	2.52-2.77
NOFMA No. 1 COM PLAIN WHITE OAK	2.50	2.45	2.42-2.60
NOFMA No. 1 COM PLAIN RED OAK	2.56	2.54	2.50-2.65
NOFMA No. 2 COM WHITE OAK	2.10	2.10	2.05-2.15
NOFMA No. 2 COM RED OAK	2.12	2.12	2.07-2.15

International Trade of U.S. Hardwood Lumber and Logs, 1990-2013 (Continued from page 13)

high of prices as Western Europe and Japan. However, if export values continue at the level that occurred in the first quarter of 2014, they could exceed 1997 levels, as the quantities exported and prices continue to increase.

In 1990, the U. S. exported 24 times more hardwood logs on a value basis than it imported (Fig. 1). While hardwood log imports increased between 1990 and 2000, hardwood log exports continued to trend upward until 2007. In 2007, log exports exceeded log imports by 3,270 percent. Since 2007, log exports have been trending downward. Exports to East Asia remained relatively high between 2007 and 2013, but exports to Europe and North America (Canada and Mexico) declined by 69 and 36 percent, respectively, with the greatest declines in dollar terms occurring in Spain, Canada, Germany, and Italy.

The U.S. has an abundant and growing hardwood resource, well-developed highway and railroad transportation systems, numerous sea ports, and very few obstacles restricting the exportation of hardwood lumber. Timber availability, transportation advantages, and a modern hardwood sawmilling industry (at larger facilities) also have allowed the United States to hold a comparative advantage in lumber production and exportation. Given the relative lack of hardwood timber availability in China and the lack of temperate species in Vietnam (needed for the U.S. furniture market), the balance of hardwood lumber and log trade should remain positive in the foreseeable future.